# Early Childhood Education and Care for Children from Low-income or Minority Backgrounds

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## INTRODUCTION

1. In many countries, systems of early childhood care and education (ECEC) are currently under review. A major force behind the reappraisal is the growing labour force participation of women, putting heavy demands on the existing systems that are forced to expand their capacity and to extend their services. A second major force is the alleged role of ECEC in preparing children from socio-economically, disadvantaged families for formal schooling in primary school and in preventing psychosocial problems. A third issue - arising from increased immigration to industrial countries in past decades - is the challenge to provide for the children of cultural and linguistic minorities, although in most countries, traditional low-SES communities and indigenous minorities had never fully disappeared from national political agendas.

2. At the same time, new issues are being raised. Societies are becoming aware that early childhood is a particularly sensitive period, marked by a high degree both of adaptability and vulnerability in the developing child to the stimulation and stresses of his or her environment. With this new knowledge, uncertainty has also arisen concerning the impact of changes in traditional child-rearing patterns on the cognitive and social-emotional development of the young. Does early, intensive, long-day care - as a recent study suggests - lead to an increase of negative, aggressive behaviour in young children? One may dispute such far-reaching conclusions based on a single study, conducted in a particular social and cultural context. Less disputed, however, is the fact, based on studies across many countries, that low quality in early childhood services may increase child- or family-related developmental risks. Further, it is well researched that economic and cultural mechanisms operating within ECEC systems predetermine low-income and ethnic and socio-linguistic minority families to choose disproportionately the lower quality options.

3. The reverse side of the medal is also present, above all, the knowledge that the tremendous capacity and adaptability of young children provide an effective starting point for preventive interventions as part of a broader social inclusion policy. Education-oriented care- and pre-school programmes are found to contribute importantly to the development of cognitive and language skills, providing disadvantaged children with a head start in primary school when formal instruction starts.

4. The recent OECD report *Starting Strong* (OECD, 2001) describes these developments in 12 OECD countries, detailing the recent changes in ECEC systems and national policies, revealing both common challenges and diverse solutions. The present paper focuses on a specific issue within this broad framework, complementing the overview of *Starting Strong*: What is, or can be, the function of ECEC for children from low-income and minority families? What is, or can be, the role of ECEC in improving social integration? The approach is research based. It provides in Chapter 1 a short overview of recent currents in early childhood research, and draws out the implications for early child development and learning from the most recent research. The succeeding chapters summarise the research available in four areas important for policy making in support of children and families from low-income and/or minority backgrounds:

- Child rearing challenges for low-income and minority families
- The effects of organised ECEC on child development and learning
- Parental choice and its links with socio-economic and ethnic attributes
- Quality and efficacy: implications for ECEC systems design and policy

# CHAPTER 1

# INTELLIGENCE AND LEARNING IN YOUNG CHILDREN

## Some recent currents in early childhood research

### *Behavioural genetics*

5. It is only three decades ago that leading psychologists argued in response to the disappointing results of the first nation-wide evaluation of Head Start programmes in USA that the genetic-biological nature of cognitive competence precluded any major lasting improvements in this area by pre-school programmes (Jensen, 1969, 1991). Still, in 1994 Hernnstein and Murray (1994) referred to the supposedly bell-curve shaped distribution of genetic potential for intelligence and related skills to support their plea for abolishing affirmative action measures and other forms of compensatory and priority policy, suggesting that genetic differences constitute the meritocratic basis for social inequalities between ethnic and racial groups. In the same year, in a provocative book, Rowe (1994) concluded that the family and cultural community, seen as 'shared environments', have very limited impact on children's intellectual and personality development, in addition to genetic factors and unique, non-shared experiences. Similar statements were made a few years earlier by Scarr (1992) in her presidential address to the Society for Research in Child Development, who allowed for substantial environmental influence – and thus for intervention effects - on child development only in cases of extreme deprivation and abuse and neglect.

### *Genes and environment: reconsidering the issue*

6. Both Rowe's and Scarr's arguments were based on the results of the behavioural genetics research programme that expanded rapidly since the sixties and became a dominant view in psychology and educational sciences in the eighties and early nineties. The core of this programme is a research paradigm that involves identical and non-identical twins raised apart (in different families) and together (in the same family), and adopted children who are compared with their genetically unrelated siblings in the same adoptive family. By computing correlations between the members of twin-pairs or between adopted children and biologically non-related siblings, estimates are derived of the amount of genetically caused variance in individual differences in, for instance, IQ, symbolised by the coefficient $h^2$, of the amount of variance caused by the non-shared environment, $e^2$ (or $u^2$), and of the amount of the variance caused by the common environment, $c^2$. Underlying this paradigm is a theoretical model, that states that the variance in a given population in phenotype P is the sum of the variance in genotype G and the variances due to unique, E, and shared, C, environmental effects. The additive model presupposes a neuro-biological developmental model that assumes that the genotype directly regulates neurodevelopment and that neurodevelopment

directly regulates psychological and behavioural development. Put differently, the behaviour genetic research programme heavily leans on the assumption of the innateness of psychological functions.

7. Within this paradigm, the results accumulating from several studies in several countries converge. For instance, the $h^2$ of IQ is found to range between .6 and .8 (1.0 is the maximum), whereas the remaining variance is largely attributable to unique environmental causes that include random errors of measurement, unique individual experiences outside the family and possibly different treatment of individual children within the family. Similarly, the $h^2$ of personality traits like extraversion-introversion, neuroticism and sociability is estimated to range between .3 and .5, but again the remaining environmental variance is mostly of the unique type. Essentially, this is the basis for conclusions that shared environments, such as the family (not counting differential treatment and unique experiences within the family), but also the pre-school programme, or the cultural system do not matter much for individual differences.

***The interactionist model***

8. In the late nineties, the influential discourse of behavioural genetics met with growing criticisms, both methodological and theoretical (Bronfenbrenner & Ceci, 1994; Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Maccoby, 2000; Rutter, 2000; Turkheimer & Waldron, 2000; Wahlsten & Gottlieb, 1997). Bronfenbrenner and Ceci (1994) launched a severe attack on the statistical model assumptions and lack of content (developmental) theory of behavioural genetics and proposed a re-conceptualisation of the nature-nurture problem. Referring to basic notions in biological and neuro-biological sciences, Bronfenbrenner and Ceci questioned the assumption of direct genetic regulation of psychological structures (without environmental influences) and outlined an interactionist model in which the core process is the actualisation of genetic potential into a phenotype through continuous interactions of the organism-person with the physical, social and cultural-symbolic environment. These, what they called, proximal processes are supposed to have a quantitative aspect – duration, regularity, continuity, increasing complexity – and a qualitative aspect – reciprocity and culturally specific contents – both aspects determining the efficacy in actualising genetic potential in a given cultural context (see also Leseman & van den Boom, 1999).

9. From their bio-ecological model, Bronfenbrenner and Ceci derived an important hypothesis, namely that in unfavourable circumstances (e.g. poverty, economic crises, being a member of a non-mainstream culture) the actualisation of genetic potential is sub-optimal, increasing the risk of dysfunctional development (e.g. psychosocial problems) and leading to underdevelopment of cognitive, language and social-cognitive competencies. The hypothesis also predicted a lower $h^2$ in unfavorable circumstances because geno-typical differences between individuals will not be fully expressed when each individual's genetic potential is not optimally actualised. As a matter of fact, a recent study with twins focusing on vocabulary development by Rowe, Jacobson and van den Oord (1999) provided direct evidence. Using a traditional behavioural genetics research design, but applying this to two separate samples of high and low socio-economic status (SES) families, the researchers found different values for $h^2$ and $c^2$. In favourable circumstances (the high-SES sample) the genetically caused variance, $h^2$, of vocabulary was .74 and the variance due to shared environment (e.g. home communication) $c^2$, was .00, but in unfavourable circumstances (the low-SES sample) $h^2$ was only .26 and $c^2$ now was .23, meaning that even small differences between families in vocabulary exposure had a relatively big effect on all children within the family regardless their genetic differences. In addition, the mean vocabulary score in the high-SES sample was substantially higher than in the low-SES sample, indicating underdevelopment of vocabulary in the latter group. Although this debate on nature-nurture interaction is somewhat abstract and academic, the implications for family and ECEC policy are far reaching.

### *Arguments from neuroscience*

10. Whereas the psychological and educational discourse of the past decades was marked by a renaissance of nativist models of development and learning, a review of the evidence from recent developmental neuroscience research shows that the arena has completely changed (Bidell & Fischer, 1997; Johnson, 1998; Byrnes & Fox, 1998; Shonkoff & Phillips, 2000; Wahlsten & Gottlieb, 1997). Leading scholars in this field attest to the fundamental plasticity and low degree of genetic pre-specification of neuro-structures underlying complex cognitive, emotional and social functions and behaviour. Particularly, the early years up to age five or six are marked by an enormous malleability. Experience – interaction with the physical, social and symbolic environment - shapes the neuro-structures involved, so as to adapt to the environment optimally. A number of neuro-developmental processes are identified. First, in addition to the largely prenatal overproduction of neurons, brain development in the first two years of life shows an enormous endogenously generated (over)production of synaptic connections and growth of neuronal axons, leading to a strong increase of the brain mass in the first two years of life. At age two, the synaptic density of the brain is about 150% of that of the adult brain. Second, exogneous experience – leading to selective repeated activation of particular neurons and of 'circuits' of neurons guides the establishment and strengthening of new neuronal connections, stabilising and speeding up neuro-information processing along these paths or circuits, which is called a progressive process. Conversely, synaptic connections and axons that are not regularly activated regress and disappear. Third, remarkably few psychological and behavioural functions seem to be pre-specified and innately located in predetermined areas in the brain. On the contrary, studies using methods such as transplanting brain tissue from, for instance, an auditory area into a visual area, show a high cross-modal plasticity, the tissue adapting to the function of its new area.

## The implications of the new research

### *Language, cognition, emotion-regulation*

11. The issue of brain pre-specification versus equi-potentiality and experience-dependent brain development has been extensively studied for language (for an overview, see Johnson, 1998). There is evidence that the basic capacity of very young children to perceive language sounds, and to discriminate and recognize sounds and boundaries in speech (elementary syntactic parsing) is based in a very early developing structure located in a specific brain region. The development of this structure requires a minimum of language input to be triggered, and, therefore, is assumed to be an 'experience-expectant' neuro-structure. Yet, the narrowing down in the first year of life of this system to the perception and recognition of the phonemes of the mother tongue requires extensive interaction with sensitive adults patiently inter-acting with the child, and this developmental process correlates with selective consolidation and modularisation of certain synaptic connections and the regression of no longer relevant synaptic connections in this particular brain area in this period.

12. Similarly, there is evidence that certain brain areas are biased (i.e., experience-expectant) towards information about faces and about emotional tone in face and voice, explaining the very early development of face recognition, discrimination of familiar and unfamiliar faces, and children's direct access to the emotions of caregivers (called emotional contagion), that form the basis for shared attention, preverbal communication and inter-subjectivity (Trevarthen, 1987). The more complex language functions involved in communication or in reading comprehension (see below), however, appear to be distributed over several brain areas in both hemispheres and to consist in numerous parallel working neuro-circuits. This makes sense considering that in executing complex skills, such as verbal communication, many sub-skills and elementary psychological functions are involved simultaneously (Byrnes & Fox, 1998). Crucial, then, for

the development of complex skills such as language, is the co-ordination and integration of sub-skills and simple functions, and the gradual stabilisation of this hierarchical co-ordination in the course of development (Bidell & Fischer, 1997). This complex skill development is essentially 'experience dependent' and requires structured experience through culturally regulated guidance and co-ordination from the 'outside' by parents and other caregivers.

13. Another area that has profited much from recent brain research is emotional-motivational development, relating to temperament and personality development (Derryberry & Rothbart, 1997; Posner & Rothbart, 2000). Researchers have identified and located a number of emotion-motivation systems in the lower sub-cortical brain parts that are presumably innate and expressing genetically determined early differences in 'reactivity', a construct that refers to the ease, speed and intensity of becoming activated when perceiving a relevant stimulus, and that is related to the construct of temperament. When activated, the systems determine an emotional reaction, that is, bodily arousal, emotional expression (e.g., crying) and a tendency to approach or avoid the stimulus. The actual emotional and behavioural response is determined by a complex interplay of activation and inhibition of all systems.

14. In addition, researchers have found perceptual-attentional mechanisms that regulate the emotion-motivation of an individual by being alert to relevant stimuli, by selectively attending to stimuli and by shifting attention from one to another stimulus. Although again part of the attentional systems involved are wired-in and located in specific regions of the brain, recent research concentrates on the development of complex attentional skills or, as it is called, 'effortful control' that involves a kind of 'deliberately' regulating activation and inhibition of the lower-order emotion-motivation and perceptual-attentional systems. On the neuro-biological side, studies have revealed that complex attentional skills integrate neuro-structures associated with emotional-motivational, perceptual-motor, and cognitive-memory functions.

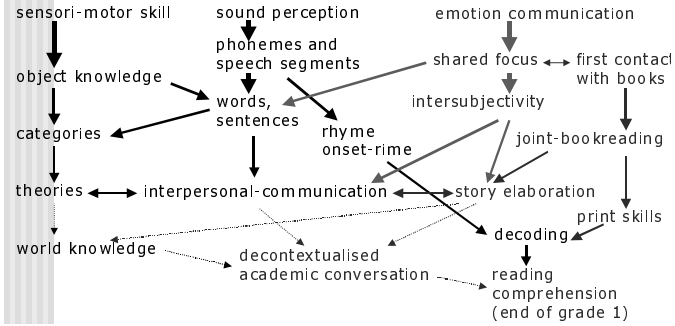
15. On the psychological and educational side, the development of effortful control was found to be promoted by specific characteristics of caregiver-child interactions and in later stages also child-child interactions, that change in form and content over time as new skills (e.g., language) come available that can be integrated in emotion regulation skill, and as new situations with new demands are encountered. In the early years sensitive responsive caregiving (i.e., reacting promptly to signals of emotional distress or to signals of bio-psychological needs) is associated with the establishment of secure attachment between child and caregiver and the establisment on part of the child of a working model of social relationships that promote affiliation, trust and cooperation. Sensitive responsive caregiving appears also to strengthen effortful control, thereby serving a number of important skills and behaviours in view of optimal adjustment to (later) social and educational contexts, such as the 'compentence' or 'skill' to persevere in the face of difficult tasks, to be enthusiastic and involved, to explore, to be sociable and to feel and show empathy (Kochanska, Murray, & Harlan, 2000). This effect of care-giving is particularly notable in children with genetically determined high reactivity (i.e., who are extremely impulsive and externalizing or extremely fearful and neurotic; Belsky, Friedman, & Hsieh, 2001). In later years, explicit verbal emotion related communication and sharing verbally emotional coping and social problem-solving strategies seem to promote effortful control, serving again functional social and school-related behaviour (Chambers, 1999; Oppenheim, Nir, Warren, & Emden, 1997).

16. In summary, the picture that arises is that of a developing multipurpose, highly adaptive, malleable brain that in the first five or six years of life is gradually fine-tuned to the environment and further stabilizes in the years after. The neuroscientific eveidence has increased the awareness of the crucial role of the social and cultural environment both by protecting children against stressful experiences that may literally harm healthy brain development in the emotional domain and by providing adequate stimulation to children to develop complex, culturally functional skills in the cognitive and social-cognitive domains (Shonkoff & Phillips, 2000). Although brain development – learning, skill development - continues throughout life, the first five or six years of life are considered to be a particulary sensitive

period for development of basic skills, including skills that are required for optimal functioning in formal education. Besides the neuro-biological aspects, the sensitivity of early childhood is also a contextual ecological systems characteristic. The intensive care young children require anyhow and the different forms of care and early education that are available offer more opportunities to adapt flexibly to children's specific needs and potentials than in later stages when children are in the primary and secondary school system because the school system has much lees degrees of freedom to be adaptive (due to a fixed curriculum, a fixed grade-by-year system, fixed output goals, standard examinations, et cetera).

17. As an illustration of the the theoretical notions discussed here, Figure 1 depicts the hypothetical *developmental web* of reading comprehension skill by the end of elementary grade 1, showing how different basic cognitive, oral language and emotional skills become increasingly stable (represented by the boldness of the arrows) and differentiated (represented by the branchings) in the course of development, and how complex 'higher level' skills are constructed by integrating several basic skills (see for an empirically tested developmental web model of technical reading skill: Knight & Fischer, 1992). Note that the model is a simplification and does not show that the social environment – e.g. experiences with certain forms of language use, experience with literacy - is crucial for constructing the complex skills that finally build up reading comprehension. Note also that, according to this hypothetical model, reading comprehension in grade 1 is still an unstable structure (represented by the dotted arrows), that needs contextual support and enough practice time to become consolidated.

Figure 1:
Hypothetical *developmental web* of reading comprehension (end of grade 1)




***Development and learning as dynamic, situated, and (co-)constructed***

18. Following the changing windows on neuro-biological development and the re-conceptualisation of the nature-nurture link, new models of child development have gained prominence in the psychological and educational sciences. In a new programme, building on critically reinterpreted theories of Dewey, Piaget and Vygotsky, the fundamentally dynamic and situated nature of (cognitive) skills is emphasised, while traditional static notions of 'inner' competence and inborn mental faculties are radically rejected (Bidell & Fischer, 1997; Fischer & Bidell, 1998; van Geert, 1994, 2000). The notion of *skill*, as opposed to *competence*, exemplifies this. Skill is defined as the ordered and hierarchically co-ordinated sequential pattern of goal-directed mental and behavioural actions that are required to solve a particular problem or to obtain a certain goal in a particular situation. The relation with Piagetian theory lies in the fundamental notion of the goal-motivated construction of a complex skill, integrating lower-level sensori-motor and cognitive schemas into a comprehensive higher-order, more abstract cognitive schema. The relation with Vygotskian theory lies in the fundamental view that task characteristics and situation factors, including

forms of social support and collaboration with others, co-determine how the skill is constructed. There is also a strong and intrinsic relation with emotion-motivation theories. A skill, seen as an in real time unfolding co-ordinated pattern of mental and behavioural actions serves an end (the desire to solve the problem) and skill construction is regulated by monitoring whether this end is approached; new construction steps require concentration and effort that somehow must be mobilised and regulated.

19. The educational counterpart of this basic theory is found in recent work by Rogoff (1998) and others, who focus on situated social-constructive or co-constructive skill development. The starting point is Vygotsky's notion of the zone of proximal development, as the crucible of biological and cultural systems. The ZPD, often interpreted as a property of the individual, as a kind of potential that hides somewhere in the individual's mind, is radically placed in the concrete social-interactive situations a child encounters, in which he or she collaborates with others, peers as well as more experienced others –parents, nurses, teachers - on culturally relevant tasks (see also Nicolopoulou, 1993; Verba, 1993). Collaboration may involve different types or levels of activity: mere observation, working in the margin under guidance or full cooperative participation. Crucial for development to occur is that the individual somehow 'owns' a share in the collaborative process, or, in more psychological terms, is psychologically involved in the 'skill under construction'. The key factor here is called inter-subjectivity. There must first be established some shared perspective, joint attentional focus, common frame of reference or, in short, shared thinking and cooperation in order for collaborative construction of skills to take place.

20. A fundamental issue, that deserves much attention of researchers as well as early childhood programme designers in the next years to come, is how situated micro development in a single episode of constructive or co-constructive activity, relates to actually observed macro development of children over longer time periods, showing a gradual development of general cognitive skills (that, by the way, when assessed by the end of early childhood do relatively successfully predict later schoolachievement in several subject matter domains). The issue at stake is how new, situated and, in particular, jointly constructed skills become 'internalised', 'stable over time' and 'cross-situational transferable', and how they further develop into even more complex and comprehensive skills. There is a neuro-biological aspect. The situational integration of new complex skills is neurologically fragile, that is, not yet supported by already well-established and through repeated activition consolidated neuronal circuitry. As a first answer to the question how micro development leads to macro development, the consolidation, stabilisation and transfer of new skills requires repeated similarly situated constructive activities, that is, it requires a cross-situational coherence of experiences (Fischer & Bidell, 1998). Similarly, generalization and increasing complexity of skills require experiences supporting through selective and repeated activation neuro-biological development, that is, it requires gradual variation of tasks and situations, and increasing complexity and comprehensiveness of tasks and situations.

21. There is complementary cultural-ecological aspect, referring to the 'systems' or 'codes' that structure and regulate the situations developing children will participate in over time. Culture is presupposed to regulate the settings, tasks, problems and conflicts that are presented to the developing child and the social (educational) support that is given eventually, thereby co-determining the 'content' of skill construction. For instance, whether a child develops preliteracy skills in early childhood depends fully on repeated and increasingly complex experiences with literacy situations that in turn depend on his or her parents' literacy, cultural lifestyle and jobs, and also on the curriculum of non-parental care and education arrangements of the child. Culture regulates the timing, coherence, continuity and increasing complexity of situations that in turn determine the 'efficacy' of developmental processes. For instance, socialization of emotional control in the family may differ from the counterpart processes in a day care centre. Parents may put much value on inhibition of impulses and strict control of emotional expression even in very young children, due to their cultural (religious) beliefs, whereas the centre may encourage emotional expressivity and impulsivity in pre-school children, because it is believed that this promotes healthy emotional development, independence, exploration and creativity. The issue is not who is right, but the incoherence

in socialization contexts that, as such, may render socialization processes less effective whatever the culturally defined socialization goals.

22. There are some preliminary consequences that are relevant for the design of ECEC systems and the implementation of programmes of whatever kind. First, according to recent theory and research, child development is not mainly internally driven, but equally externally regulated and constructed. There is no such thing as the child's "own, spontaneous development" in this sense, that can, and as some say, should be contrasted with cultural learning and instruction in early childhood. Neither is the child a *tabula rasa*: he or she has a rudimentary personality (viz., patterns of emotional reactivity), genuine bio-psychological motives, and basic perceptual, motor, language and cognitive functions right from the start. Second, neuro-biological growth, co-ordination and consolidation processes, require time. These processes both facilitate the development of ever more complex skills in task-activities and social interaction, but also constrain what at a given age and in a given period of time can be appropriated by the child through activity and social interaction. Third, development should be seen as a gradually unfolding web of increasingly differentiated and integrated basic skills into complex (specialised) skills and functions (cf. Fischer & Bidell, 1998). This complex pattern of interrelated developmental trajectories cuts cross the artificial borders of the traditionally distinguished domains of cognition, language, emotion and social competence. Cognitive, communicative, sensorimotor and emotional skills can and should not be separated in this process. Finally, to recall Bronfenbrenner and Ceci's contentions, regularity, repetition and gradual variation, duration and continuity, and adaptation qua content to the cultural context, are essential efficacy parameters. An important question is to what extent present ECEC-systems do support the kind of coherent, continuous and increasingly complex, culturally adaptive proximal processes of children.

## CHAPTER 2

## CHILD REARING CHALLENGES FOR LOW-INCOME AND MINORITY FAMILIES

### Delineating the child population in question

23. What is the target group of children of this review? As a preliminary definition the OECD (1998) classification is adopted, that distinguishes between three categories of children with special (pre-school) educational needs. In category A are children suffering from organic or mental disorders, that is to say, with so called disabilities and mental handicaps, who represent about 2% of a population. In category B are children with developmental delays and (later) learning difficulties that are not directly attributable to either diagnosed pathologies or to the socio-cultural factors characteristic of the next category. Category C, finally, consists of children with presumably normal potential, but who show developmental delays or are at risk for educational failure due to socio-economic, cultural and/or socio-linguistic factors, constituting 10% to 20% of all young children in many countries. The category excludes children at risk of learning and behavioural problems due to endogenous organic disorders or to other non-social causes. In this section, we shall further examine how socio-economic, cultural and socio-linguistic factors may impede optimal child development. The focus is on the family as the primary context of development, but occasionally other important contexts of development in early childhood will be addressed as well. Development in the context of ECEC systems will be discussed in more detail in the next chapter.

24. Although the OECD definition neatly defines the target group - that is, children who have special educational needs due to socio-economic, cultural or socio-linguistic factors - the group is far from homogenous internally and the boundaries with the other categories are sometimes fuzzy. Furthermore, as will be argued, in defining appropriate ECEC policy further differentiation within the C-category is essential to match to the needs of individual children and families. As a further delineation of the target group, the age range should be specified. What is meant by early childhood? A practical solution seems to be to relate the end of early childhood to the age at which most commonly (i.e., in most countries, for most children) formal instruction in reading, writing and mathematics starts, that is between age 6 and 7. It should be noted, however, that both earlier and later boundaries are defensible and that, from a developmental psychological point of view, any sharp boundary is somewhat arbitrary. In addition, defining the age range from 0 to 6 (or 6.5) may cut cross the different official national definitions of early childhood as they are institutionalised in the current ECEC systems, statutory regulations and the age of compulsory schooling.

25. In most countries educational priority policies are based on broad sociological factors or categories, mutually overlapping and inter-correlated, such as family income-level, poverty, social class, region or neighbourhood of residence, parental educational level, family structure (single parenthood), native language of the parents, country of emigration, et cetera. Children and families belonging to one or

more of these categories are eligible for special services and subsidies. Indeed, the very subject of this paper, accessibility of ECEC for low-income and ethnic minority groups reflects the same starting point. Needless to say, that these factors as such do not directly determine developmental delays and lower school achievements, but should be seen as indicating certain personal and contextual 'risks' that ultimately influence the proximal processes in the micro-systems of the home environment and related contexts. Reviewing the research on socio-economic and ethnic-cultural differences in cognitive, language, social-emotional and school skills development four strands of research emerge, covering the following topics: 1) socio-economic and psychological risks accumulation as related to family processes, 2) informal stimulation of cognitive and language development in family interactions as related to socio-economic and cultural background, 3) differences in cultural beliefs determining parenting style, socialization processes and personality development, and 4) linguistic, psychological and educational aspects of bilingual development. These topics will be briefly reviewed hereafter.

**Risk accumulation and dysfunctional development**

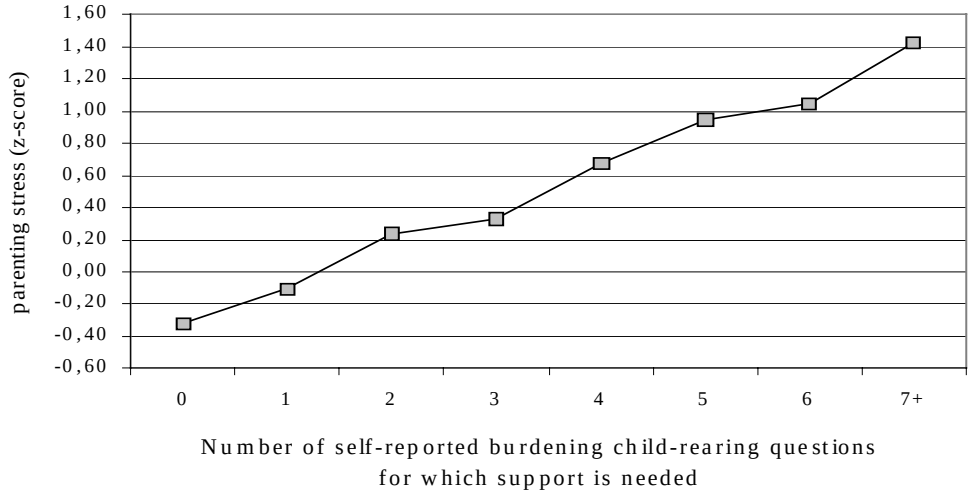
26. The first strand of research is represented by the works of Rutter (1979) and Sameroff and colleagues (for an overview, see Sameroff & Fiese, 2000) on the accumulation of psychological, socio-economic and ethnic-cultural risks. A number of studies, conducted in several countries (USA, UK, the Netherlands), have shown that developmental outcomes in the areas of intellectual skill, school achievement, social-emotional competence, and social adjustment are strongly inversely correlated with the mere number of a broad array of risks that may be present in the family or wider context of the family, with correlation coefficients amounting to -.75 between a risk accumulation index and diverse developmental outcome scores (Conger, Ge, Elder, Lorenz, & Simons, 1994; Sameroff & Fiese, 2000; Sameroff, Seifer, Baldwin & Baldwin, 1993). The inverse relationship between the number of risks and developmental outcomes is nearly linear. Among the risk factors studied were children's prematurity, low birthweight, low IQ and difficult temperament, parent's psychiatric problems (depression, drugs abuse), marital conflict, large number of children in the family, single parenthood, low income, job stress, unemployment of the bread winner, bad housing conditions, unsafe and polluted neighbourhoods, frequent changes of residence, and ethnic minority status. Also traditional child rearing beliefs and authoritarian parenting style have been listed as risk factors, but they will be discussed in a later section. In a recent review, Repetti, Taylor and Seeman (2002) provide abundant evidence for a strong causal relationship between stressed family environments in early childhood and poor mental and physical health of the offspring later in life.

27. One of the advantages of the risk-accumulation approach to (impending) maladaptive family functioning and dysfunctional development, is that it broadens the view on what constitutes the category 'disadvantaged children'. Although some of the listed risk factors are strongly related to low income, social class or ethnic minority status, others are not and may equally be present in higher income families (e.g. marital conflict, job stress, financial problems, health problems). Furthermore, being a low income, lower social class, single parent or ethnic minority family as such may not be decisive. Only in combination with multiple other risks low income, low social class or ethnic minority status will have serious consequences for child development. Another virtue of the model is that it increases the awareness of the fundamental unpredictability of accumulating risks. Although risk cumulation indexes correlate negatively with income and SES and positively with ethnic minority status, it is hard to predict which specific risks will hit the individual family in due course and which specific needs for support may arise, as a consequence.

28. An intriguing, often replicated finding in these studies is that the mere number of risks, but not the specific constellation of risks, determines negative developmental outcomes. Several studies point to the emotional regulation of parenting behaviour as a possible/probable mediating link. Parenting (and also non-parental care-giving in centres or host families) requires a strong child centred motivation, often at the

expense of parents' egocentric concerns (Crnic & Greenberg, 1990; Dix, 1991; Hastings & Grusec, 1998). (Consider, for instance, the child crying in the middle of the night and the decision the parent has to make to either ignore the crying or to get up and sooth the child.) Accumulating risks undermine this motivation to care, to stimulate the child and to monitor the child's safety and well-being due to the emotional processes that are triggered to deal with these risks. Accumulating risks that cannot be dealt with effectively (for which there is no ready solution or feasible coping strategy) cause chronic stress and feelings of exhaustion. In due course, this leads to a shift in the balance between child-centred and self-centred goals, influencing subsequent child rearing negatively. In his famous article on maladaptive patterns in the affective regulation of parenting, Dix (1991) reviewed many studies that reported a relation between parents' stress and depression and their lack of emotional involvement in child rearing, lack of monitoring, emotional unavailability and harsh disciplining. Ackerman, Izard, Schoff, Younstrom and Kogos (1999) examined how the emotions of parents modulate the effects of contextual risks (basically the same risks as mentioned above) on children's development. Accumulating risks had the strongest negative effects on development when they led to chronic negative emotions with the parents. If parents, in the face of adversity, were able to maintain positive emotions, the negative effects of accumulating risks on child development were relatively small. Also in Repetti et al.'s (2002) model of the relationships between contextual risks, family processes and children's and youth' physical and mental health, parents' negative emotions and parenting stress are seen as major intermediating links.

29. As an illustration Figure 2 presents the relationship between the mere number of worrying and burdening questions and problems regarding child development and child rearing (maximum was 12), expressed by parents with children under 6 years of age, and parents' self-reported psychological stress (composite measure of enduring negative emotions, low feeling of competence, and exhaustion), based on personal interviews with a representative sample of 1545 Dutch parents (source: Leseman & Hermanns, in press). The purpose of the research was to establish whether experienced and readily expressed concrete problems and needs for support in child rearing were indeed related to stress. As the Figure shows, the relation is strong and almost linear. The difference in self-reported parenting stress between parents who reported to have no or only one, and those who reported to have seven or more burdening questions, worries or problems, amounted to more than 1.5 standard deviation.




30. The idea of parents' chronic negative emotions ('stress') as the mediating link, is consistent with another important research finding concerning the protective effect of social support (cf. Crnic & Acevedo,

1996; Crnic & Greenberg, 1990; Haines & Hurlbert, 1992; Hashima & Amato, 1994; Melson, Ladd, & Hsu, 1993; Taylor, Repetti, & Seeman, 1997; Repetti et al., 2002). The negative effects of risk accumulation can be 'buffered' – neutralised - to a certain extent if parents report to be supported (or to expect to be supported) by other persons who are close to them. Social support from partner, relatives, neighbours, friends or colleagues may take different forms. Instrumental support may help parents to deal with specific risks, for instance, financial support when there are financial problems, or help in the household when one of parents is ill. Advisory of informational support may be helpful for parents in finding new solutions that they couldn't think up themselves. Emotional support, lending a 'strong shoulder' to the troubled parent, may be helpful in emotion-focused coping with adversity when there are no real short term solutions. The net result of all these forms of social support is reduced psychological stress. Social support comes from persons who together constitute the social network of the family. The lack of a social network, a reduced, small social network, or low quality of the social network (i.e. low emotional involvement, low cohesion) is a risk factor in itself (Sameroff & Fiese, 2000).

**Informal education and school preparation**

31. The second strand of research to be presented here is concerned with so called informal instruction in the family of cognitive, language, pre-literacy and pre-numeracy skills. A number of studies, conducted in Canada, Israel, the USA, the UK, Spain and the Netherlands and a few other countries focused on maternal (or, more broadly, parental) teaching strategies in everyday play and problem-solving situations with the children, looking for social class and ethnic differences in the use of cognitive distancing strategies – a construct referring to ways of stimulating the child to think deeper, to think more abstractly, to symbolize a problem, to use abstract concepts and meta-cognitive strategies. Relationships have been reported between these informal cognitive socialization practices and cognitive development, language development, IQ and school achievement (Busch-Rossnagel et al., 1995; Gottfried, Fleming, & Gottfried, 1998; Laosa, 1982; Leseman & van den Boom, 1999; Palacios, Moreno & Gonzalez, 1992; Sigel & McGillicuddy-DeLisi, 1984). Other studies focused on informal communicative interactions in the family, such as mealtime conversations and play sessions, or on talk during daily household activities, to determine the density and richness of vocabulary, the use of difficult (i.e., rare, sophisticated) words and formal definitions, and the use of strategies of refering verbally to non-immediate contexts (called 'decontextualised language use'; see also Figure 1), relating these practices to children's language development (Blake, 1993; Bornstein, Haynes, & Painter, 1998; Hart & Risley, 1995; Hoff-Ginsberg, 1991; Wells, 1985; Weizman & Snow, 2001). Finally, several studies addressed home literacy, or more specifically, joint book reading in the family, relating home literacy practices to measures of language development, emergent literacy and reading in school. Again socio-economic and ethnic-cultural differences were studied (Baker, Sonnenschein, & Serpell, 2001; Bus, Leseman, & Keultjes, 2000; Bus, Pellegrini & van IJzendoorn, 1995; de Jong & Leseman, 2001; Heath, 1983; Leseman & de Jong, 1998; Whitehurst & Lonigan, 1998).

32. Most of these studies also looked for socio-economic and ethnic differences in interaction and communication patterns at home. The results of all these studies are quite consistent in showing 1) that informal education or instruction practices at home predict children's cognitive and language development and later school achievement substantially (even if individual differences in intelligence are controled), and 2) that poverty, low social class, low educational level, traditional cultural child rearing beliefs, non-mainstream cultural background, particular religious traditions, and low-literate life styles have a pervasive influence on informal education at home, leading in the end to less optimal preparation of the children for formal schooling.

**Traditional vs. modern child rearing beliefs**

33. A third strand of research relates the cultural belief systems of parents and communities of parents to developmental outcomes and school achievement. The cultural beliefs studied concern both general ideas about development and learning of young children, the nature of children, developmental timetables (at what age do parents expect children to have mastered particular cognitive, emotional or social skills), and important socialization goals, as well as more specific ideas and values concerning the importance of literacy, schooling and achieving in school.

34. A major distinction is made between 'traditional collectivistic' and 'modern individualistic' beliefs (cf. Palacios et al., 1992; Raeff, Greenfield & Quiroz, 2000; Schaefer & Edgerton, 1985). Traditional beliefs are characterised by a so called collectivistic orientation, meaning that the interests of the individual child are subjected to the interests of the greater social unit of the (extended) family and local community, and emphasize socialisation goals such as obedience, control, respect for adults and authorities, conformity to rules, and responsibility. Characteristic also is a strict gender differentiation. There are different rules, different roles and different socialization goals for boys and girls. Traditional views ascribe development to biological maturation and see learning as a result of modeling and direct instruction ("the child does good when he is told so"). Associated with traditional beliefs are an authoritarian parenting style and relatively late expectations about the age at which children are psychologically mature, have their own genuine intentions, and can be taken seriously as persons. Modern beliefs are characterised by a so called individualistic orientation, meaning that maximal actualization of the individual's talents - cognitive, creative, artistic – are put on the foreground, and emphasize socialization goals as emotional independence, self-will, verbal intelligence, competitiveness, intellectual and artistic excellence, for boys and girls alike. Development and learning are seen as (social)constructive processes that are promoted by self-initiated exploration, discovery and experience, and by child-following instruction and dialogue. Associated with modern beliefs are authoritative and permissive parenting styles, and relatively very early expectations about the age at which children can already be taken seriously as persons with intentionality.

35. A simple distinction like this, of course, is more ideal than real. In reality, parental beliefs do not simply fit to either the traditional-collectivistic or modern-individualistic pole of the underlying dimension, but may reflect more complex mixtures of ideas and goals (Harkness, Super & van Tijen, 2000; Harwood, Schölmerich & Schulze, 2000). Neither are parenting beliefs static or fully coherent; parents may hold several conflicting beliefs at the same time, and their beliefs are observed to be adapted to particular situations, to differences between children, and to changing circumstances (cf. Rubin & Mills, 1992; Valsiner & Litvinovic, 1996). For instance, documented in several studies, parents who immigrated from traditional non-schooled cultures, may combine collectivist child rearing beliefs with a strong commitment to a successful school career for their children (Espin & Warner, 1982; Lin & Fu, 1991; Okagaki & Frensch, 1998; van Eck & Veen, 1992).Yet, as a rough summary, the traditional-modern, collectivistic-individualistic dimension has proven useful. A rather consistent finding in many studies in several countries is the strong correlation between parents' beliefs and their educational level, social class and urbanization: higher educated, higher SES, urban parents mostly subscribe to modern, individualistic beliefs, whereas lower educated, lower SES, non-urban parents mostly subscribe to traditional beliefs. Studies in western countries have also included immigrant groups and found that immigrants who came from non-industrialised agrarian societies mostly had traditional child rearing beliefs. Yet, it should be emphasised that cultural child rearing beliefs are not static entities, but dynamic structures that adapt to individual children and to particular experiences, changes and situations, thereby causing big within-group heterogeneity.

36. How parents' cultural child rearing beliefs may affect children's development, succesful integration in the school system and adjustment to the demands of present-day modern (individualised)

high-tech societies, still is a largely unanswered question. One pressupposition is that beliefs direct parenting behavior, and influence in particular the social-emotional and verbal-cognitive quality of parents' interactions with young children (see previous section). Beliefs may also operate more indirectly by influencing important decisions regarding the choice of early childhood care and education faciltities, as will be discussed in more detail in chapter 4. Finally, it may not be about the content of parents' beliefs, goals and values as such nor about the personality traits that are fostered, as well as about the many mismatches that possibly arise if the private belief systems of families differ strongly from the official (cultural majority's) belief systems. In an interesting study into a Latino American community, Greenfield, Quiroz and Raeff (2000) described how parent-teacher conferences in an elementary school often turned into a non-cooperative and ultimately failing social interaction because of a conflict between the underlying collectivistic versus individualistic models of child development and child rearing.

37. A number of studies related parents' child rearing beliefs to cognitive development and school achievement, using the traditional-modern dimension or similar one as frame of reference. Although the results generally indicate that traditional beliefs correlate with cognitive delays, lower IQ, psychosocial problems, lower school achievement and less successful social integration (cf. Palacios et al., 1992; Patterson, Reid, & Dishion, 1992; Sternberg & Okagaki, 1993; Stoolmiller, Patterson, & Snyder, 2000), the pattern actually is more complex. Okagaki and French (1998; see also Espin & Warner, 1982; Lin & Fu, 1991) studied the relationship of parents' traditional vs. modern beliefs with children's school achievement in African-American, Latino-American, Asian-American and European-American communities in the USA. They found that in Asian-American (and to a lesser extent also in Latino-American) communities traditional beliefs and authoritarian parenting were associated with better school achievement, whereas in African-American and European-American families traditional beliefs correlated negatively with school achievement. A possible explanation is that in both the Asian and Latino communities traditional beliefs functioned in the context of mostly intact, cohesive extended families, with a strong sense of cultural identity, and as social units economically rather successful (at least, in the case of Asian-American immigrant families). Put differently, the traditional collectivistic orientation in child rearing fitted well with the predominant social context in which the children grew up. Noteworthy is that these families tended to keep their children away from contacts with the majority society except for the school hours.

**Bilingual development**

38. The final strand of research to be addressed here concerns bilingual development. Bilingualism is a complex phenomenon involving linguistic, psychological and sociological facets. In a recent overview Bialystok (2001; see also McLaughlin, 1992) summarizes (experimental) evidence showing that in favorable social circumstances bilingualism is not a detrimental condition at all. On the contrary, being a 'balanced' bilingual means cognitive and linguistic advantages in areas as attentional control and response inhibition (bilinguals being better able to concentrate and to reflect before responding), and meta-linguistic awareness (bilinguals being more able to reflect on language as a system). Similarly, Cummins (1991) presented evidence that high proficiency in the first language, L1, facilitates the acquisition of the second (school) language, L2, and related school skills such as reading in the L2 context, leading to a balanced bilingualism.

39. The notion of balanced biligualism needs further clarification. It means that the child's proficiency in L1 (mother tongue) and L2 (second language, often the school language) has reached the same *mature*, *age-appropriate* level. This, in turn, implies that L1 and L2 inputs somehow were balanced in the course of development, both quantitatively (exposure, instruction time) and qualitatively (social prestige, communicative uses, level of complexity). In bilingual development two basic models are distinguished: simultaneous and successive bilingual development. Simultaneous bilingual development

means that the child starts acquiring L1 and L2 at the same time, in his or her first year of life. This situation is characteristic for families with parents who speak different mother tongues (often using the one-parent-one-language strategy in communication with the child) and for so called ex-pat families (e.g. international business people, diplomats). Far more common, however, is the situation of successive bilingualism, meaning that a child first acquires L1 up to a certain level of proficiency, before starting to learn L2. L1 is the predominant language at home, the language that the parents speak best; L2 is the predominant (and mostly sole) language of other care and education contexts, such as the day care centre, pre-school, kindergarten and primary school, and often a language that the parents don't speak well. This situation is typical for most bilingual (immigrant) families in western countries today.

40. A further complicating factor concerns the type of first languages and the predominant social-communicative functions they serve in their contexts-of-use. L1 may structurally be closely akin to L2 (as in the case of English and French bilingualism, the most studied bilingual situation worldwide), sharing many of the lexical, morphological, syntactic and discourse-organisational structures, or, in contrast, structurally deviating strongly (as in case of German and Turkish, Swedish and Tarifit-Berber, or Dutch and Somalian, to mention just a few L1-L2 combinations presently found). Although this issue has not received much attention of researchers until now, linguists assume that structural (dis)similarity of L1 and L2 is one of the factors determining the successful acquisition of L2 (Slobin, 1997). As to the predominant functions and uses of first languages, a distinction is made between informal use for social and instrumental purposes and more formal use for informative, educational and cognitively complex purposes. Closely paralleling this distinction is another: the use of L1 in both informal oral communication and more formal written language. In bilingual situations where L1 and L2 are both officially recognised and institutionalised in school language programmes, in government communication, in printed media, and on television as is the case in, for example, Canada and to some extent in the Scandinavian countries concerning indigenous sociolinguistic minorities, L1 will probably be used for both informal and formal, and for oral and written communication. However, the situation of most bilingual immigrants in western countries is marked by a lower status of their L1, lack of official recognition, and a lack of formalised and literate use. Some mother tongues nowadays present in Europe, such as Tarifit-Berber and non-standard Arab-dialects, even lack an official written form.

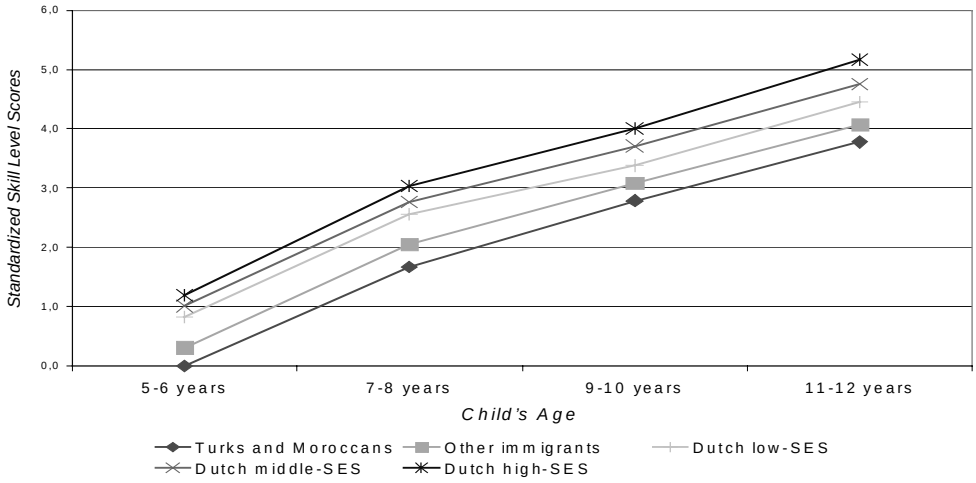
41. Despite the experimental evidence of advantages of bilingualism for a number of cognitive and linguistic skills, several studies document that, in particular, *successive* bilingualism has a negative effect on L2 development and on school achievement in L2 contexts in general, *often in addition to* other effects of the home environment (discussed above). The positive transfer between L1 and L2, reported by Cummins, does not occur in most cases of bilingualism. On the contrary, there appears to be a competitive relation between L1 and L2 concerning available (informal) instruction time and children's cognitive resources in the acquisition process (Pearson & Fernandéz, 1994; Tomasello, 2000; Verhallen & Schoonen, 1998; Wong Fillmore, 1991). Research in the Netherlands and the USA, for instance, revealed that the effort bilingual children have to invest to acquire basic communicative skill in L2 is at the expense of the effort they, as all children, need to invest in order to master academic skill. This effect is probably reinforced by structural dissimilarities of L1 and L2, and different uses of L1 at home (not for cognitively complex functions, not for written communication), compared to the uses of L2 in school.

**Summary and implications**

42. Returning to the main theme of this review, the position of low-income and ethnic minority groups in modern societies and the consequences of this position for early childhood development, at least four aspects of the home environment as developmental context seem relevant: 1) there may be a strong risk-accumulation combined with a lack of social support jeopardizing the family as an affective system; 2) there may be low levels of cognitive stimulation, decontextualised language use and literacy, that renders

the informal preparation of children for elementary school less optimal; 3) parents may hold traditional child rearing beliefs and socialisation goals that do not match to the socialisation practices and personality requiremnents in other social contexts; and 4) the mother tongue may be different from the school language, structurally and *qua* use. The extant research in these areas supports the basic notion of the OECD's C-category, the starting point of this review, that particular socio-economic and cultural factors lead to sub-optimal actualisation of potential and increase the risk of dysfunctional development in young children.

43. The importance of the pre-school home environment for intellectual development is illustrated by recent longitudinal Dutch data on Dutch language development (vocabulary, sentence and text comprehension) in elementary school, presented in Figure 3 (source: Tesser & Iedema, 2001). The first point of measurement was in grade 2, when the students were between 5 and 6 years of age (the second kindergarten year); the final in grade 8 when the students were between 11 and 12 years. All testscores were transformed to one standard scale (standard deviation = 1), with the lowest mean score (for Turkish and Moroccan students at age 5-6) fixed to zero. The Figure shows growth curves for Dutch students of high, middle and low social class, Turkish and Moroccan students, and students from immigrant groups (mainly Surinamese and Antillean). Early differences between children in kindergarten, strongly correlating with the home environment, did not decrease in elementary school.




44. When considering the details, its becomes clear that socio-economic, educational, cultural or socio-linguistic 'disadvantages' constitute a rather heterogeneous class, requiring a flexible, adaptive approach in order to support young children optimally. For instance, not all families of the same low income level experience the same needs for support, care and pre-school education at the same time. Immigrant families may function very well as developmental contexts for social-emotional skills, although the home language and home literacy situation might justify an educational intervention. With respect to ECEC systems, a diverse pattern of needs for support and starting points for preventive intervention emerges, requiring adaptive solutions. Although the present review set out to identify 'problems' in family upbringing in low income and minority groups, it should be emphasised that, in contrast, the positive affective bonds that normally exist in families, the strong ties and sense of collective identity, the deeply felt value of raising children, and the bonds of the family with the social networks of the wider community, represent powerful positive resources that should be built on in ECEC programmes, or, at least, that should not be undermined. These issues will be taken up again in the final chapter of this review.

## CHAPTER 3

## THE EFFECTS OF ORGANISED ECEC ON CHILD DEVELOPMENT

### Introduction

45. Early childhood care and education covers a broad field of activities, characterised by diverse goals, systems, strategies, curricula and target groups. Taking the definition of *Starting Strong*, ECEC includes all arrangements providing education and care for children under compulsory schooling (or better, before the start of formal primary schooling; see chapter 1) and policy measures intended to support optimal care and education in this period such as parental leave regulations. In this chapter we will review available research evidence concerning the effects of different education and care arrangements or strategies on disadvantaged children's cognitive and social-emotional development. As will be apparent, not all aspects of ECEC in its broad conception have been subjected to research equally. The evidence to be considered here concerns mainly effect studies of educational pre-school programmes, regular day care and, in a limited number, of special early prevention and family support programmes, also intended to improve child development or to prevent dysfunctional development of children at risk. Despite this limitation, there still is a broad range to cover. The variation is briefly depicted here.

46. A first basic distinction concerns the main purpose or societal function: education or care, or a deliberate combination of the two, as in the Scandinavian 'educare'. If it is primarily about education, explicit (national) goals for learning and development are set and the child is put central; education is seen as complementing home education. If it is primarily about care, economically efficient and convenient, and qualitatively 'sufficient' care is provided that takes over care functions of working parents. In comparing representative pre-school care and education provisions in different European and North-American states, Tietze and Cryer (1999) found consistent differences in centre-quality using the internationally recognised standard measures ITERS and ECERS, revealing that on average centres in an education-oriented national system were marked by lower structural and pedagogical process quality than centres in a care-oriented national system (Tietze & Cryer, 1999). Yet, the situation is more complicated than these data suggest. This is not only revealed by the big intra-national differences Tietze and Cryer found, particularly in care-oriented national systems (where very good quality easily goes together with very low quality), but relates also to the effects on children's development, where in addition to a system's quality also child and family effects come into play.

47. Further distinctions concern the basic intervention strategy chosen to realise the primary objectives. When using a child focused strategy, activities are mainly provided to or directed towards the child; his or her parents or other stakeholders not being targeted or only secondarily for instrumental purposes. A family centred or family focused strategy takes the family as the basic unit. Supporting

families, i.e. parents in their everyday tasks of child rearing, is seen as the best way to foster optimal child development and to prevent developmental dysfunction. Finally, a community focus means that an entire community – a particular neighbourhood or village or local ethnic group – is targeted. Improving the community's abilities tot organise community life, informal social support, care and education is believed to benefit individual children's development best ultimately. Related to this, but not identical is a distinction based on the choice for the primary site of care and education. In a centre-based approach, a centre which is not the home of the children or the home of host parent or relative, but may be a day care centre, a playgroup, pre-school, community centre or school, is chosen to provide the care and education activities. Usually, services are delivered by professionals (trained nurses or teachers). A home-based approach uses the children's (or a host family's) home as intervention site to deliver care and education services. Usually the parents or host parents are the main agents to deliver the service dealing directly with the target child, although they may be supported by professionals. A community-based approach takes community structures and institutions such as parent groups, local grass-root organisations and neighbourhood facilities as the primary target of the intervention. Finally, combined strategies may be employed, using more than one site, involving professionals as well as parents and 'grass roots' volunteers, targeting more than one system (e.g. child, parent, family, school, community).

48. From the point of view of optimal child development (see chapter 1), it may not matter much which basic ECEC model is chosen in the first place, that is, whether the child is in early childhood care or education, in a centre or at home, cared for and educated by a professional caregiver, a volunteering but hardly trained paraprofessional, or his or her parent, provided that the proximal processes of the child are optimal in Bronfenbrenner's sense, both quantitatively and qualitatively. What does matter in this regard is at what age the child started in ECEC, how many hours each week the child is in care or education, how many years are spent in care or education before primary school begins, what activities and social interactions the child participates in, how these activities and interactions may foster cognitive and personal development over time, how big the groups of children are, how many staff is available, how secure, trustworthy and stable the child's social relationships are with other children and with caregivers, and, finally, how good and available possible alternatives are (for instance, parental care). As will become clear, from the point of view of child development these are the essential characteristics determining developmental outcomes in long term. Yet, there are few simple straightforward relations of characteristics like these and outcomes.

**Predominant models in ECEC**

49. Given these (and some additional, not explicitly addressed) distinctions, three major models stand out. The vast majority of formal ECEC provisions, known through official research publications, has adopted a mono-systemic child focused, centre based, professional delivery strategy. This doesn't just concern centre based child care (within the care tradition), but also pre-school educational intervention programmes and early general schooling (kindergarten) in the education tradition. Within this large cluster, the actual use of the provisions or the actual programmes offered differ vastly on such characteristics as age of onset (or 'timing', for an easy terminology), intensity, duration, 'dose' (as the product of intensity and duration), staff-child ratio, and pedagogical-didactic concept.

50. A second major model, though quantitatively much less important, consists of various mono-systemic child centred, home based care services and education programmes, using relatively untrained non-professionals –parents, host parents – as delivery agents. In addition to officially licensed home care (non parental family day care), this cluster also comprises home based educational intervention programmes. A third model consists of a wide array of parent or family focused help and support programmes. Usually, systems and programmes of family support offer a diversity of services and activities tailored to the multiple needs of families. However, parent-focused programmes may also have

narrower defined goals of enhancing parent management skill or parents' knowledge about appropriate health behaviour. Furthermore, programmes may be of the 'grass roots' type, using volunteers from the same community to regularly visit socially isolated (single parent) families to bring them emotional and practical social support. A typical example is the Home Start programme that presently runs in the country of origin, England, and also in Australia, Ireland, the Netherlands, Northern-Ireland, Norway, Scotland and a few other countries (Gibbons & Thorpe, 1989; Hermanns & Leseman, submitted; Van der Eijken, 1982). In contrast, the programme may involve professionals and clinicians who try to train parents of children at risk of conduct disorder to foster the development of social skills (cf. Cunningham, Bremner & Boyle, 1995). A common characteristic of parenting or family support programmes is that children are not targeted directly, at least to the present definition. It is expected that their development will be optimal, if the family context is relatively free of stress resulting from contextual risks, lack of social support and daily parenting (see chapter 2) or if parents have mastered appropriate parenting skills.

51. A final ECEC model combines child centred (usually the primary interest) and parent/family centred goals (seen as instrumental to the primary goals), provides care and education in a centre and at home, and works with professional nurses and teachers as well as parents. Programmes within this cluster occasionally stretch out to primary school and sometimes involve the neighbourhood and community level as well. A typical example at the borderline of a mere family support approach and a real combined child- and family focused model is the Yale Child Welfare Program (Seitz, Rosenbaum & Apfel, 1985). This programme worked with socioeconomically extremely disadvantaged families who were visited monthly by a social worker in a 2½ year period. The families were helped with finding suitable housing and better jobs, received advice on child-rearing and child health matters, and were emotionally supported. In addition, the preschool children of the families attended a high quality educational day care centre during many hours per week, that stimulated cognitive, language, and social-emotional development. When the programme children were in adolescence (age 14), they still differed reliably from controls in general school achievement. The early effects on the parents were also maintained by and large. Other examples of combination models with a more pronunciated child centred educational mission will be discussed later.

**The evaluation of the developmental effects of early childhood programmeming**

52. World-wide, several hundreds educational early childhood programmes have been carried out since the late fifties and early sixties. Part of these programmes have been evaluated in a methodologically appropriate way, most of them in the USA, reporting immediate short term and sometimes long term results. The majority of these evaluated programmes were carried out as part of the USA Head Start policy. In addition, there are results available of so called model programmes that were carried out by university departments or charity organisations. A few model programmes were followed on very long term (up to 15 to 30 years after the programme ended).

53. The efficacy of the earliest programmes, that started in the beginning of the sixties, were usually related to IQ gains of an experimental group compared with a randomly assigned control group or an equivalent (matched) but non-random comparison group. In the evaluation of later programmes other outcome measures were added, such as class retention, referral to special education, school achievements, social-emotional competences, and social adjustment. Long term efficacy is usually related to social outcomes such as attained education level, economic independence, and social adjustment (negatively indicated by crime rates, teenage pregnancies). The many evaluation reports are summarised in a number of recent reviews, such as Barnett (1995), Boocock (1995), Bowman, Burns and Donovan (2001), Bryant and Maxwell (1997), Farran (2000), Gilliam and Zigler (2000), Leseman, Otter, Blok and Deckers (1998), Ramey and Ramey (1998), Sylva and Wiltshire (1993), van Tuijl, Aleman and Siebes (submitted). Of these reviews only Gilliam and Zigler, Leseman et al. and van Tuijl et al. are quantitative statistical meta-analyses, all other reviews provide narrative integration of the mixed findings. The study by White, Taylor

and Moss (1992) is a statistical meta-analysis also, but limited to the role of parents in pre-school intervention programmes. A number of narrative and quantitative reviews address related topics. Yoshikawa (1994) compared the long term effects of early childhood education and family support programmes on later crime rates. Olds and Kitzman (1993; see also Olds, Henderson, Cole et al., 1998) provide a quantitative review of the long term results of home visitation programmes to prevent child abuse and neglect. McLeod and Nelson (2000) conducted a statistical meta-analysis of evaluation studies of programmes to promote family functioning and to prevent abuse and neglect.

54. The effects of regular child care on child development have been studied in several countries the past decades, but not always explicitly addressing effects on low income and ethnic and socio-linguistic minority children. Summaries of the research (occasionally also including educational programmes) are, for instance, Clarke-Stewart and Fein (1983) and Lamb (1998). Recently, the results of carefully designed studies conducted under auspices of the Early Child Care Research Network of the National Institute of Child Health and Development (NICHD) in the USA have become available that specifically address effects of child care on children who are somehow at risk, including socio-economic and cultural disadvantages (Vandell & Wolfe, 2000: NICHD, in press).

**The efficacy of different centre-based education and care programmes**

55. Centre-based and combined centre-based and home-based educational pre-school programmes, focusing on the disadvantaged child, have mixed results. As programmes within these clusters or models differ considerably in basic strategic design, structural quality, programme content and process quality, this may explain the mixed findings and point out the ways to improve efficacy. This is the purpose of the next paragraphs.

56. A major quantitative review of Head Start centre-based programmes by McKey et al. concluded that, on average, Head Start centres produced short term cognitive gains of about one half of a standard deviation (effectsize d = .50), but found also that these short term effects faded out within two years after the programme ended. This still seems to be pretty much the present state of affairs regarding Head Start and comparable large-scale pre-school programmes (Barnett, 1995; Farran, 2000). Gilliam and Zigler (2000) reviewed the results of state funded half-day pre-schools for poor disadvantaged children in the USA. These pre-schools were not part of the national Head Start programme (and, thus, not subjected to its quality regulations), nor carrying out a high quality model programme (see below). Gilliam and Zigler report mixed results. Overall, the average effectiveness is weak (and not significantly differing from zero), but in some states with higher basic quality requirements with respect to staff training, group sizes, staff-child ratios, the average effectiveness approaches what is found for Head Start. Middle long term or long term results were not available.

57. In contrast to these large scale programmes, so called model programmes (university based or independently provided by a charity foundation) yielded (far) better results, both on short and long term (Barnett, 1995; Bryant & Maxwell, 1997; Royce, Darlington & Murray, 1983). Comparing Head Start with model programmes is not without difficulties, as they served different (disadvantaged) populations. In one older study a local Head Start programme was compared with a local model programme, randomly assigning children to one of the two programmes. The model programme had stronger results on cognitive outcome measures in short and middle long term (Sprigle & Schaefer, 1985). An explanation is that model programmes are carried out on small scale compared with Head Start programmes, with larger budgets, better trained and paid staff, and more favourable staff-child ratios (Barnett, 1995).

58. Among the model programmes are a number of so called combination model programmes that were followed into long term, such as the High/Scope Perry Pre-school Project, the Syracuse Family

Development Research Project, the Milwaukee Project, the Florida Parent Education Project, the Houston Parent Child Development Centres Programme, the Yale Child Welfare Project, the Abecedarian Project and the Chicago Child-Parent Centres Programme. Characteristic of these programmes is that an intensive, early starting, child-focussed, centre-based programme is combined with strong parent involvement, parent education, programmed educational home activities and measures of family support (for instance, helping parents to find jobs or suitable housing, educating parents about child health care). Barnett (1995), Farran (2000) and Yoshikawa (1994) compared the short and long term results of these combination programmes with the effects of specific mono-systemic child- or family centred education programmes. The conclusions converge. The effects of combination programmes on IQ and school achievement are stronger and longer maintained. In addition, there are effects on social-emotional measures (self-esteem, work attitude, sociability). Although, in most studies ultimately effects on IQ fade out before adolescence (as in mono-systemic approaches, but later), long term efficacy appears from on average better school achievement scores in the later grades (concerning reading and math), better completed school careers, lower dependency on welfare, higher economic independence, less psychosocial problems, less juvenile delinquency, and less teenage pregnancies as compared with a control group. According to Barnett (2000), due to these broad benefits, investments in early childhood educational combination programmes clearly pay off on macroeconomic scale already after a few years. The recent follow-up of the Abecedarian Project at age 21 shows that even intervention effects on IQ may persist in addition to rather strong long term effects on reading and math skill (Campbell, Pungello, Miller-Johnson, Burchinal, & Ramey, 2001).

59. Thus, the way a programme is designed and how it is carried out probably matters for the effects found on short and long term in both cognitive and social-emotional domains of development. To explore further how programme design characteristics are related to effect sizes, Leseman et al. (1998) conducted a statistical meta-analysis of evaluation studies of centre-based pre-school programmes (including Head Start and model programmes) that were published between 1985 and 1996. 18 methodologically sound studies yielded 64 different experimental-control group comparisons in three areas of outcome measures: IQ and non-verbal cognitive, language and pre-literacy, and social-emotional. The effects of programme design characteristics were systematically examined by grouping studies to presence or absence of these characteristics. By evaluating whether grouping resulted in statistically significant greater within-group homogeneity of effects, and greater between-group heterogeneity, the moderating role of programme design characteristics could be determined. The mean effects in the cognitive and verbal domain were medium-sized: d = .41 and d = .49, when comparing an experimental pre-school programme with a regular pre-school or kindergarten programme, but medium to strong (for intelligence d = .67) when compared to no pre-school. The results in the social-emotional domain (based on less than 18 studies because not all studies reported outcomes in this domain) were weak: d = .20. Leseman et al. found a moderating role for outcome domain (stronger results in the cognitive and language domain than in the social-emotional domain), age of onset (stronger effect sizes for a start at or before age three compared to a later start), professionality of intervention agents (stronger effects for professionals than for paraprofessionals and parents), and pedagogical concept (stronger effects for a child following, 'developmental' approach than for a didactic, programme following approach).

60. The programme characteristic 'dose' (the product of intensity and duration) appeared to be curvilinearly related to effect size in the cognitive and language domain (and not related to effect size in the social-emotional domain) if effects on both short and long term were pooled. If only middle long term and long term effects were considered dose appeared to be strongly related to effect size (a bigger dose yielding stronger middle to long term effects than a smaller dose). In their review of long term followed educational intervention programmes, Bryant and Maxwell (1997) reached a similar conclusion: programme intensity (or programme dose) probably distinghuishes programmes where benefits persisted from those where they were less enduring. In a recent meta-analysis of several of the same studies that were analysed by Leseman et al., but including studies of strictly home based programmes also, van Tuijl et al. found rather similar results. By using a different criterion to distinguish between low and high

intensity, they found a clear effect of this characteristic: with a weekly programme-intensity lower than 119 minutes the effect size was d = .19, not statistically significantly differing from zero, whereas programmes with an intensity of more than 119 minutes per week had a mean effect size of d = .76 (strong effect). There is no doubt that more characteristics need to be explored and systematically varied in experimental trials, yet these analyses do make clear that pre-school programme design and programme (pedagogical) content matter.

## The efficacy of home-based educational programmes and family support

61. Compared to centre-based and combination programmes, there are less methodologically sound evaluation studies of home based programmes available. Part of the available studies refer to the same few widely implemented programmes, such as the Parent as Teachers Programme (PAT; USA), the Homebased Instruction Programme for Pre-school Youngsters (HIPPY; Israel, the Netherlands, Turkey, USA), the Mother (or Parent) Child Home Programme (MCHP, PCHP; USA, Bermudas, the Netherlands). In addition, there are recent published studies available of two new experimental programmes from the Netherlands (Riksen-Walraven et al., 1996; van Tuijl, Leseman & Rispens, 2001). In his recent review, Farran (2000) concludes that home-based educational programmes with child centred cognitive goals are overall less effective than centre-based educational programmes. In their quantitative review, van Tuijl et al. (submitted) arrived at a similar conclusion based on a comparison of 9 centre-based and 5 home-based education programmes, with mean effect sizes of d = .42 and d = .17 (not significantly differing from zero) respectively. Finally, White et al. (1992) concluded that the involvement of parents in educational programmes in addition to professionals did not lead to stronger programme effects. There may be several explanations for this pattern (cf. Farran, 2000). Parents as primary intervention agents are not sufficiently skilled to carry out the programme activities. They may be illiterate; the home language may not be the language of the programme. The home situation, with the presence of other – younger - children or an unemployed husband, may not be conducive to optimal programme implementation. Multiple stressors may be present, hindering programme implementation.

62. It should be noted here, that these conclusions are based on the average results of home-based programmes across different programmes, target groups and cultural contexts. Occasionally, home-based programmes do yield long term results on cognitive, language, school achievement and social adjustment measures. An example is the Turkish Early Enrichment Programme, that was based on HIPPY (Kağıtçıbaşı, 1999). Yet, the positive outcomes of this particular study could not be replicated in the Netherlands and the United States. Similarly, van Tuijl et al. (2001) argue on the basis of the results of the Dutch home-based education programme Opstap Opnieuw, that high quality home-based programmes should be available to low income and minority families that have the motivation and skill to do the programme optimally, because this is possibly very effective and efficient.

63. A particular application of the home based education model may be to promote balanced bilingual development. Considering that it often is not possible to provide truly bilingual care and education in ECEC centres and elementary schools due to financing and staffing problems or to political objections, involving parents as relative L1-experts may be a way out. Leseman and van Tuijl (2001) reported medium-sized effects of the Turkish version of the home-based programme Opstap Opnieuw on Turkish children's L1 (but of course not on their L2) development as well as on general cognitive and academic skills *tested in L2*, whereas participation in the ECEC centre and elementary school promoted L2 development.

64. In the same vein, family support programmes or family support systems that integrate multiple services to families or parents, with children targeted only indirectly, do not yield clear effects on children's cognitive and language development, except when a centre based educational programme

(provided in a day care centre or pre-school) is a standard service offered to all families, as in the Yale Child Welfare Project and other combination programmes. In their review of the long term efficacy of early intervention and support programmes, Bryant and Maxwell (1997) concluded that child-centred and combined approaches have more enduring cognitive effects than family or community centred approaches. Leseman et al. (1998) and van Tuijl et al. (submitted) compared child centred educational programmes that offered family support services with programmes that didn't, but found no advantage of the first on cognitive and language outcomes. This makes sense, considering that family support programmes primarily help parents to cope with the daily stresses arising from contextual risks and from the burdens and uncertainties of everyday child rearing in order to restore affective family functioning (cf. Dix, 1991). Family support programmes, unless they are part of a broader educational intervention, do not directly attempt to change young children's exposure to language, literacy, and cognitive stimulation.

65. However, family support programmes probably *do* work to protect children against adversive child rearing conditions in high stress families, preventing dysfunctional social-emotional development, and *do* help families effectively to deal with the daily burdens of having a handicapped child (Harbin, McWilliams & Gallagher, 2000) or a child with difficult temperament that is prone to develop emotional problems and conduct disorders (Cunningham, Bremmer & Boyle, 1995; van den Boom, 1994; Webster-Stratton, 1998). In this way, parent and family centred components of otherwise child centred early education programmes may be important to deal with possible comorbidity and risk-accumulation in the home environments of some of the targeted children, and for preventing selective drop-out and insufficient or inadequate programme implementation (Farran, 2000). A statistical meta-analysis of programmes by McLeod and Nelson (2000) aiming at improving family functioning and preventing child abuse and neglect in high stress families showed that multi-systemic family support programmes, providing multiple services to children and families whenever needed and using empowerment methods such as self-help groups, were far more effective with a near to strong mean effectsize, than either indicated monosystemic therapeutic programmes and universal low intensive education programmes. Similarly, several studies and statistical meta-analyses by Olds and colleagues into the long term effects of home visitation programs, involving frequent visits to young first time parents in the pre- and postnatal period reported favourable medium-sized long term effects on child abuse and neglect in the family, and on children's physical and mental health and antisocial behaviour (cf. Olds & Kitzman, 1993; Olds et al., 1998). Also studies into the effectiveness of the exemplary Home Start programme indicate that the social support delivered by Home Start volunteers who visited isolated, high stressed families, reduced parenting stress and negative emotionality, enhanced feelings of competence and decreased the number of referrals to (mental) health care institutions (McAuley, 1999; Hermanns & Leseman, submitted).

## The developmental effects of regular child care

66. The question whether intensive day care use has detrimental or, to the contrary, positive effects on child development has troubled parents, policy makers and researchers since long. The research focus hase been on centre based child day care, but recently also non-parental home care and informal care by relatives are included. From the extant research, mainly based on centre based child care in the USA and Sweden with average populations, again a mixed picture emerges, showing a crucial moderating role of quality of care. Quality is usually operationalised by variables indicating structural quality (maximum group size, staff-child ratio, staff qualifications, salaries, availability of play materials), staff pedagogical beliefs, the centre's pedagogical concept, and process quality (observational measures of nurse-child interaction, degree of verbal interaction, emotional support, disciplining and conflict solving style). Research in this field is complicated by self selection mechanisms leading to a correlation between the pedagogical quality of the home environment and the quality of day care that makes it difficult to disentangle developmental effects of the home and effects of the centre. Research that controls for this co-variation by studying effects of day care in socio-economically and ethnic homogenous populations or by

assessing the pedagogical quality of the home and including this measure as a co-variate in statistical analyses is needed in order to be able to draw more definitive conclusions about child care effects.

67. Reviewing the results of many studies, the overall conclusion of Lamb (1998) is that quality matters crucially. Although, overall, child care has (weak to medium sized) positive effects on cognitive and language development, and according to most studies no broad negative effects on social adjustment and social-emotional skills, this doesn't hold for all children nor for all centres and types of day care. Swedish studies have reported overall long term benefits of early starting intensive centre-based day care on school achievement and social adjustment (Andersson, 1989, 1992; Broberg, Wessels, Lamb & Hwang, 1997; see also Field, 1991). Note that these findings are based on early beginning, relatively intensive and overall high quality day care involving socio-economically 'average' or even 'above average' children. Therefore, they do not automatically generalize to non-average children, such as socio-economically disadvantaged children and ethnic minority children.

68. Recent research under auspices of the Early Childcare Research Network of the National Institute of Child Health and Development in the USA confirms by and large the earlier findings. Two of these studies reported weak to medium sized positive effects on cognitive and language outcome measures of three-years-olds controlling for self-selection mechanisms, but revealed a clear relationship with centre quality. Comparing the 25% centres lowest in quality with the 25% centres highest in quality effect sizes ranged from d = .18 to d = .48 (Burchinal, Roberts, Riggins, Zeisel & Neebe, 2000; NICHD, 2000; Ramey, Campbell, Burchinal, Skinner, Gardner & Ramey, in press). Thus, if centre-based day care is of above-average quality medium sized cognitive and language benefits can be obtained for children of low-income and ethnic minority families. Similarly, (small) positive effects of high quality care were found on behavioural adjustment (fewer behaviour problems; NICHD, 1998). Note, however, that in the real population, low-income families and ethnic minority families tend to select lower quality care types, which is an issue that will be taken up in the next chapter of this report. The NICHD studies (cf. NICHD, 1997) also reveal interaction effects with the home pedagogical climate. The positive effects of average quality day care on cognitive, language and social-emotional outcome measures are stronger when the pedagogical climate at home (a composite measure based on questionnaire and observation data) is lower, as generally holds for disadvantaged children; there are no positive effects (there may even be negative effects) of child day care in case of children from privileged homes.

69. A recent, not yet published study causes more worries (NICHD, in press). The study focused in particular on the effects of a very early start (within a few months after birth), high intensity of use (30 hours per week or more) and long duration - up to 4½ years in the present study - of non-parental, centre based and home-based day care (including a non-parental and non-relative caregiver in the child's own home, controlling for the pedagogical quality of the home. Previous studies of the Early Child Care Research Network assessed outcomes at younger ages. The study confirms the overall cognitive and language benefits of centre based day care (but to a much lesser extent of non-parental home based day care), the role of centre quality, and the inverse relationship of day care benefits with child rearing quality of the home. Quantity of child day care, implying an early start, intensive use and long duration, is again found to be positively related to cognitive gains. However, the study now also shows medium sized negative main effects of the mere quantity of day care on social-emotional outcome measures at age 4½ years (externalising problem behaviour) *regardless* of day care quality or quality of the home environment. These results mirror previous findings (also in studies not related to the NICHD project) that substantial amounts of centre based day care can lead to poorer parent-child relationships, elevated rates of insecure infant-parent attachments, heightened behaviour problems and problematic peer-relationships, yet in these previous studies the negative effects were attributable to low centre quality. Finally, a further finding of this study is that, even in the case of high quality centre care, a high quality home environment has considerably *stronger positive effects* on cognitive, language and social-emotional development.

70. These briefly summarised results already reached the headlines in many countries and are now heavily disputed among scholars in this field. Rightly it has been stipulated that follow-up studies are needed in order to know whether the present results point to irrevocable changes in the child's psychology, or to mere transient fluctuations. Others have argued that the measures of problem behaviour yielded mean values that are still far outside the clinical range and may have reflected assertiveness, independence, or a socially acceptable degree of competitiveness. Explanations for the negative main effect of an early start of day care combined with a high intensity of use point to brain development studies and suggest that particularly the babies' and infants' greater need for sensitive-responsive one-to-one caregiving and fine-tuned perceptual and verbal stimulation, and their neurologically based greater vulnerability for emotional stress renders centre day care (and non-parental family day care) arrangements with – under good quality conditions – about three other babies or infants present less adequate (Riksen-Walraven, 2002; Shonkoff & Phillips, 2000).

**Summary of programme characteristics and their effects**

71. Is there some kind of trade-off between cognitive and social-emotional effects of ECEC programmes? The dual outcomes reported in the recent NICHD study – positive effects on cognitive and language development, negative effects on social-emotional development when day care started very early – are sometimes also found in studies of educational pre-school programmes. Well-known is the study by Haskins (1985) who evaluated an intensive educational programme with a so-called 'didactic' programme-centred direct-instruction approach that started at age three. Medium sized to strong positive effects were found on cognitive outcome measures, but medium sized negative effects on social-emotional development (programme children showing more aggression/externalizing problem behaviours). Burts, Hart, Charlesworth, Fleege, Mosley and Thomasson (1992) found in an observation study that children in didactic pre-schools and kindergarten classrooms displayed more emotional stress than children in child-centred developmental classrooms. Other studies (e.g. Hegland & Rix, 1990) support the suggestion that an early strong emphasis on cognitive goals (exemplified by didactic programmes for very young children) may be at the expense of a healthy social-emotional development.

72. Although didactic programmes may have better short term results in cognitive and language skills, child-development oriented approaches may have better short and long term results in the areas of self-esteem, social skills, meta-cognition, work attitude (Marcon, 1999; Schweinhart & Weikart, 1997; Stipek et al., 1995). Follow-up analyses of the Perry Pre-school Project (cf. Berrueta-Clement et al., 1984) and the High/Scope Curriculum Demonstration Project (cf. Schweinhart & Weikart, 1997) suggest that long term benefits of pre-school educational interventions, as manifest in social oucomes such as greater economic independence and lower crime rates of former programme children, depend on a social-emotional 'transport mechanism'. Detailed path-analysis of the Perry Pre-school Project, however, suggests that the immediate cognitive gain (IQ) was important too, because it enhanced programme children's self-esteem, self-confidence, work attitude and social skills when starting in primary school and lowered referrals to special education (Barnett, Young & Schweinhart, 1998). In a recent follow-up study of the Abecedarian project, Ramey et al. (2001) explicitly addressed the issue by determining whether long term academic outcomes (reading and math skill at age 21 years) were mediated by short term IQ-gains. About half of the variance in long term outcomes could be explained by early IQ effects at age 4, providing support for the so-called 'direct effects model', meaning that early *cognitive* gains are very important as the start of a chain of subsequent cognitive, academic and social-emotional development.

73. Do all children react similarly to an early education programme or to early day care? Are all children benefited equally? This question has received little attention. A few studies found interaction effects of programme type or pedagogical approach and gender. Girls are reported to be benefited more

than boys by a centre based pre-school education programme (Barnett, 1995), but this may depend on the type of programme. Miller and Bizell (1983) and Larsen and Robinson (1989) found that boys showed greater cognitive gains in a child-centred developmental programme, whereas girls profited more from a didactic approach. However, Stipek et al. (1995), who also looked for interaction effects of programme type (didactic vs. developmental) and gender, did not find moderating effects of gender on programme results. A difficulty is that gender may not be a very accurate indicator of possibly important underlying personality differences, such as negative emotionality (anxiety, shyness, aggression, attention deficit) or low emotional self-regulation.

74. Another variable that has attracted research is mother-child attachment as related to teacher-child attachment and its effect on cognitive child outcomes in pre-school education programmes and child day care. Pianta, Nimetz and Benett (1997) followed 55 mainly African-American four-years-olds entering an educational pre-school programme. They assessed mother-child attachment at the start of the programme, teacher-child attachment during the programme and cognitive and social-emotional outcomes after two years. Mother-child attachment predicted teacher-child attachment, and both mother-child and teacher-child attachment were found to moderate developmental gains: children with insecure social relations with the mother and the teachers were least benefited by the programme. A recent replication study underscores the importance of secure, stable, trustful social relationships in educational early childhood programmes for cognitive and social-emotional effects (Hamre & Pianta, 2001).

75. Related to this, recent research into the effects of centre day care reveals an interaction-effect of child care quality and early social-emotional risks (negative emotionality, ADDH, insecure attachment; cf. Lamb, 1998; van IJzendoorn, Sagi & Lambermon, 1992). High quality centre based day care is a protective factor, whereas average to low quality reinforces early child-related risks. However, too high doses of centre day care, more specifically, a too early and too intensive start may be a risk factor for all children regardless home environment, and again, even more for children at risk, as was discussed above.

76. Can we posit that the greater the socio-economic and ethnic disadvantage, the greater the benefits? Although the presupposition entailed in this question makes sense, the evidence is mixed (Farran, 2000; Burchinal et al., 2000). Affirmative evidence comes from a study by Lee, Schnur and Brooks-Gun (1988), who re-analysed Head Start data and found larger mean effect sizes for children from Afro-American families than for children from European-American working class families. Similarly, as already reported, several child day care studies showed greater benefits for children from homes with lower pedagogical quality (more stress, more authoritarian parenting, lower cognitive stimulation, less literacy) than for children from homes with higher pedagogical quality. Yet, Farran (2000) discusses several examples of programmes that cast doubt on this assumption. The reason often is that programmes demand at least some involvement of parents that parents in extremely disadvantaged circumstances may not be able to meet. In addition, if the programme is exclusively child centred, accumulating risk factors in the family and maladaptive parenting may interfere with programme effects, for instance, through the development of insecure attachment between the child and his or her parents that is transfered to the day care centre and preschool (Pianta et al., 1997).

77. A final issue concerns the fading out of programme effects. Although often documented, the phenomenon is not as universal and inevitable as it may seem. For instance, the results of a few long term followed programmes, referred to in the previous sections, indicate that long term efficacy (and a very favourable costs-benefits ratio) is possible. Probably manipulable programme design characteristics and programme quality moderate the long term preservation of effects. Yoshikawa's (1994) best-evidence-synthesis is convincing in this respect, as he argues that a rather intensive, early starting (at or before age 3, but perhaps not much earlier either), multi-systemic, high quality approach that combines a child-centred developmental pre-school with parent involvement, parent education and family support is associated with a whole range of long term gains, both individual and social. And also Leseman's et al. (1998) and Bryant

and Maxwell's (1997) finding that there is a relationship between dose and long term effect size should be recalled here. Critics of early childhood education as a compensatory measure for disadvantaged children often point to the biological nature of cognitive and language skills and quote behavioural genetics research to prove their point that the margins of change by education are very small. In view of neuro-developmental research, briefly discussed in chapter 1, this argument shouldn't bother anymore. However, this still leaves the question unanswered why pre-school effects do often fade out.

78. One study that sheds some light on this problem is the follow-up study of former Head Start participants by Lee and Loeb (1995; see also Entwisle, 1995). These researchers found that several years after completing the Head Start pre-school programme former Head Start participants, compared with former control children, attended elementary schools of statistically significantly lower educational quality, a less favourable socio-economic composition of the student population, and more unsafety. According to Lee and Loeb, it is a distinct possibility that a substantial part of the fading out of programme effects is attributable to these worse post-intervention conditions. To understand this, it should be noted that in most Head Start evaluations children are not randomly assigned to either programme or control group. Head Start programmes are initiated in those communities, neighbourhoods or schools that are worst off in terms of socio-economic disadvantages. Although controls are recruited in a nearby community, and occasionally carefully matched with programme participants, there probably was a good reason to begin with Head Start in the first and not in the second community. This may explain the differences in the post-intervention social and educational context found by Lee and Loeb. The idea that programme effects can be nullified by subsequent (extremely) adverse conditions fits in well with recent theorising in developmental psychology and developmental neuroscience, attesting to the dynamic transactional and situated nature of skills. Farran (2000) and Reynolds (1994, 1999) take research findings like these to argue for a longitudinal-contextual approach to ECEC for disadvantaged young children, emphasising the necessity for a multi-systemic and continuous approach that broadens the scope of the intervention to include the family context and extends pedagogical quality far into the elementary school.

79. Lee and Loeb's argument can be applied to the family context as well. If the post-intervention home environment is characterized by multiple risk-accumulation, lack of emotional support and monitoring, harsh disciplining, low verbal and literacy stimulation, and traditional child-rearing beliefs (see chapter 2), early gains may be nullified also. To prevent this, the operation of a family support system seems required that is able to repond to the specific needs of families whenever they arise, offering family centred multiple services (Harbin et al., 2000). However, there is no direct evidence known to the present author that confirms these presuppositions.

## CHAPTER 4

## PARENTAL CHOICE - SOCIO-ECONOMIC AND ETHNIC ATTRIBUTES

### Introduction

80. In this section available literature on the determinants of parents' choice processes will be reviewed, with special attention to the issue of income and ethnic differences in the use of early childhood care and education. The utilisation of a particular ECEC provision for one or more of the family's pre-school children, the choice for one type of ECEC, or for a combination of ECEC forms, but not for other types or forms, are ultimately decisions that parents make. These decisions on the 'demand side' are not fully independent of factors on the 'supply side' or of national or local subsidy strategies, but they nevertheless constitute a relatively autonomous space in itself. As a matter of fact, parental decisions can be seen as the final link in a chain of factors leading to utilisation of an ECEC provision or, alternatively, to care for the child at home. Therefore, to explain why, overall, low-income groups and certain minorities are underrepresented in ECEC provisions, it is worthwhile to consider the arguments parents use to reach a decision. In this section, a number of studies are reviewed that shed light on decision and choice processes. Again, most of the studies are conducted in the USA, but studies from Belgium, Germany and the Netherlands add valuable information.

81. ECEC provision constitutes in most countries a complex mixed and segmented market, with several different types of ECEC (care, education, centre-based, home-based, half-day, full-day), different prices, different financing systems, and different quality regulations. The supply is provided by private, partly subsidised or fully subsidised organisations. Subsidies may be centralised (passed directly to centres) or decentralised (through vouchers and tax deduction for parents). ECEC provisions may be near home or work, or further away, opening hours may be more or less fitting to parents' working hours, they may offer care for sick children or require parents to keep the child at home when he or she is sick. There may be different licensing and accreditation regulations operative, and - correlated with this - there may be perceived or real differences in quality. Probably most parents are not fully aware of the whole spectre of ECEC provisions, yet they have to decide. When deciding, parents consider alternatives. There may be other adults present in the home or nearby in the neighbourhood who can care for the children. One of the parents may stop working as long as the children are young, or both parents may opt for part-time employment and choose to share care responsibilities. Finally, choices may be influenced by the age of the child.

**Balancing price and quality**

82. Based on a data-set on the county level of 100 counties from all over the USA, comprising 'supply side' data about the type and capacity of early childhood care and education, quality regulations, subsidies and parental fees, and 'demand side' data about family size, single parenthood, family income level, mother employment and degree of urbanisation, Edwards, Fuller and Liang (1999), in an economic analysis, found that the demand for ECEC is enhanced by the following factors: higher 'quality' (as indicated by the rate of accreditation of ECEC provisions), lower prices (after redistribution), reduced prices for next children, higher family income, higher female employment, higher proportions of female single headed families, higher population growth rate, and higher degree of urbanisation. The supply of ECEC, more specifically the capacity of independent, not directly subsidised ECEC provisions, is enhanced when input costs (nurse and teacher salaries, staff-child ratios, technology and licensing requirements) are low, quality regulations are minimal, and subsidies are made available to parents (vouchers, tax-reduction) instead of to centres or pre-schools directly. The latter points to a crowding-out effect due to the presence of fully (and directly) subsidised centres as, for instance, Head Start pre-schools. According to the authors, the presence in a region of directly subsidised ECEC provisions leads to lower overall capacity.

83. How do demand and supply influence each other in a macro perspective? According to Edwards et al. (1999) the parental fee level (after redistribution measures) is the *nexus* of demand and supply of ECEC. Based on their county-level data, they estimate that a $1 increase in price *ceteris paribus* reduces the number of hours of care demanded per child by 1.8 hours per week, while raising the number of hours supplied by 1.3 hours per week. According to the authors, in the 100 counties they studied, demand and supply were in balance at varying levels of utilisation and parental fees. The level of utilisation and the level of parental fee at which demand and supply were in balance was determined by the factors mentioned above (average income, initial preferences, female employment, perceived quality, licensing regulations et cetera). Following Edwards et al.'s model, to raise utilisation of ECEC by low income groups, the following strategies should be applied *in combination* (assuming all other things being equal): 1) lower the costs for parents by decentralised subsidies (vouchers), tax-deduction measures and price reduction for siblings, and 2) increase the perceived quality of ECEC provisions by staffing and accreditation regulations. Other measures should include matching the function and quality of early care and education provisions to the developmental and socialisation goals of parents. The plea for a demand-side instead of supply-side subsidy is based on the crowding-out effect that was observed.

84. Spiess and Tietze (2002) also argue for decentralised subsidies to parents in order to regulate both the quantity and quality of the supply of day care and related forms of nonparental care. The context is the German Federal Republic that is characterised by big differences between the states (Bundesländer) in present supply, subsidies and regulations rooting in historical and ideological differences, and by diverse needs and preferences amongst parents. To ensure equal access across the states to the ECEC provision of parents' choice a system of decentralised subisidies is seen as an excellent instrument to improve the match of supply and demand efficiently. Yet, federally initiated quality monitoring and making quality visible, for instance, by official accreditation procedures is essential in Spiess and Tietze's model, because the economic market alone cannot ensure pedagogical quality (the intrinsic tendency is towards lower costs and thus lower quality).

85. A Swedish economic study, however, adds a different economic argument to be seriously considered (ESO, 1999). The study argues in favour of a largely publicly funded and organised child day care system, instead of giving income related subsidies to parents (as in a voucher system). The core of the argument is that using tax money to directly fund private goods is a more efficient way of redistributing income. Other redistribution systems may lead to a decrease in income-earning in the middle and higher income groups, in particular regarding working women who combine care for young children with work.

In a system that redistributes income directly by transfering tax money of the higher income families through subsidies to lower income families, there are two consequences. First, an increase in working hours for middle and higher income groups is economically not rational, because it simultaneously leads to a need for more child care hours at higher costs *and* to higher tax payment due to a higher income. Conversely, a decrease in working hours might be economically rational: lower costs for child care and lower tax payment. Second, low-income groups are not stimulated to invest in measures that will enhance their, or their children's, (future) income, since they justifiably expect income subsidies to continue in the future. Moreover, increasing working hours or investing in education so as to get work on a higher skill level will lead to more income but simultaneously to lower income subsidy. If child day care is provided publicly and almost free of fees instead, increasing working hours or investing in education is profitable thus economically rational in all income groups, but mostly so in the lower income groups (where the profit is relatively biggest). Although the report leans heavily on economic models instead of empirical data as Edwards et al.'s study, the described mechanisms are not unconvincing. Yet, two problems seem immanent. The first is that the model only seems to be valid when all (or the least the vast majority) of potential child care users prefer the same publicly provided service(s). The second problem is that a public child care system does not guarantee sensivity to the (possibly diverse) needs of parents and children, nor suficient pedagogical quality (see also Spiess and Tietze's argument).

86. Another comment arises from experiences in Australia and the UK with demand subsidies (vouchers) that show that, without further quality regulations beyond the statutory minimum quality level and without further economic redistribution, demand-subsidies may lead to a very uneven growth of the supply (overcapacity in some areas, underacapacity in other areas) and to extreme quality differences as well that strongly correlate with income differences (note that in Australia fee subsidies were also given to higher income parents who used private for-profit care; OECD, 2001).

**Parents consider also their child's educational future and the perceived quality of the service**

87. In addition to economic considerations, the choice for a particular type of care is probably also determined by parental beliefs and values concerning the importance of this particular type of care for child development. This presupposition was confirmed in a study by Johansen, Leibowitz and Waite (1996) in the USA. According to these researchers "parents who value developmental characteristics of care chose centre care, parents for whom hours, location, and costs of care are most important chose care at home." They further examined the determinants of parents concern with either developmental and education aspects, called 'internal quality', or with costs, opening hours and location, called 'external quality'. Concern with internal quality was positively predicted by degree of urbanisation, age of the child, income level, educational level of both parents, inclination to invest in the child's education (as indicated by education insurance), and negatively by the absence of a grandparent nearby, the number of siblings, rural region, and the interaction of a high education level and the child being under three years of age.

88. The choice for non-parental family care as opposed to centre day care was positively predicted by the combination of presence of a grandparent and the child being being under three years of age, low concern with internal quality and a high concern with external quality. Furthermore, if parents worked as high level professionals (doctors, lawyers) they tended to choose for family care vs. centre care. The choice for home care (mother or other adult in the household staying at home) vs. day care was positively predicted by the presence of other adults in the household, the presence of other siblings, traditional marriage with male breadwinner, low concern with internal quality and high concern with external quality, and negatively by the price of day care, the family's income level and the parents' education level. Again the combination of high education and the child being under three positively predicted the choice for home care vs. centre care.

89. Van Horn, Ramey, Mulvihill and Newell (2001) asked a large sample of mothers using centre daycare (65%), family daycare (19%) and informal relatives daycare (17%) about their choice motives. More specifically, they asked about the personal 'checklist' parents used upon choosing one of the alternatives. This was done first by an open-ended questionnaire, prompting parents to give a spontaneous account of what they had considered important. Parents overwhelmingly mentioned safety and health issues, how children are treated and how they liked the staff as most important. Structural quality characteristics as staff-child ratio and how the centre looks, its atmosphere and cleanliness were mentioned next, but usually in a rather global way, not matching the researchers' and professionals' view on structural quality. Educational quality of the centre, the centres' orientation on educational (pre-school) goals or the availability of developmental and educational play materials, were mentioned the least often, by only 25%. In addition, the researchers also presented the informants with a structured questionnaire listing 12 items of quality, including in a concise way several of the aspects that were also mentioned spontaneously in the open-ended part of the interview. The results appeared to be quite different. Over 90% of the same informants now reported that they had considered whether the type of care provided sufficient 'learning and school-like activities'. In addition, type of care (89%), location (85%), opening hours (77%) and availability of play materials (65%) were reported as important elements of the parents' checklists, whereas safety and health were mentioned only by less than half of the informants. The authors conclude that "quality matters to mothers, but (that) many lack a working knowledge of what truly indicates quality care", explaining why spontaneous ideas differ so strongly from prompted specific ideas in the structured part of the interview.

90. This finding corresponds with the results of a study by Burchinal and Cryer (1995) who compared parents' evaluations of the quality of day care centres using the ITERS/ECERS with evaluations by researchers using the same instruments. Parents tended to evaluate the quality of the centre as much higher than researchers did. Pungello and Kurtz-Costes (1999) studied the choice process. Parents mostly used informal sources of information, preferably relatives and friends. Only one or a few centres (or host families) were visited. In a short talk with representatives of the centre a list of considerations was checked, but not very systematically. It is as if parents looked for confirmation for their *a priori* choice. The final decision was taken on the basis of global indicators, such as the centres appearance or atmosphere, and whether parents liked the staff. Objective quality indicators, such as the staff-child ratio, played a minor role.

91. A study in Flanders, Belgium, (Vanpée, Sannen & Hedebouw, 2001), into choice motives of parents revealed that in addition to the free half-day kindergarten (which runs from age 2½ to age 6 years in Flanders and is used by a vast majority of Flemish families with young children) a choice between the three major forms of – after-kindergarten - child care, viz. grandparents (=relatives) care, non parental family day care and day care, was influenced by regional variations in supply (regional lower supply of day care was associated with higher choice for relatives and family care), family income (lower income, higher preference for relatives care), mothers' educational level and working hours (the higher educational level and working hours, the higher the preference for day care centres). Interestingly, the study also found that mothers who worked part time tended to choose for relatives care much more often than expected. The researchers presuppose that the current system of fees works out unfavourably for families with part time working mothers.

92. In the same study the perceived advantages and disadvantages of different types of ECEC were examined. Among the advantages mentioned by parents of centre based care (mostly used in addition to kindergarten) were the perceptions that care is specialised and provided by trained professionals and that the children are well supervised. Centre care that is offered at school had the additional advantages that children don't have to move to another location and that they know most children well. The main perceived advantages of nonparental family care were the more personal bond of the children with the caregiver (the host parent), the fact that the caregiver was always the same person, and the home-like

atmosphere in the host family. The most important advantages of grandparents care mentioned were that children know their grandparents very well, that the grandparents like it very much, and that this type of care is much more flexible. In addition to regional supply variation, job hours and financial considerations, child-centred pedagogical goals seem important as choice motives in Flanders, convenience considerations coming in the second place. Furthermore, many Flemish parents seem to adhere to a family-oriented cultural model of child rearing.

**Explaining ethnic differences**

93. Early and Burchinal (2001) addressed ethnic differences in ECEC use in the USA, where American families from African descent use centre-based care far more extensively than families from Latin-American descent, with European-American families occupying a position in-between. A large number of preferred care characteristics was examined to explain ethnic differences in the type of care used. In the sample studied, parents on average used 2.1 different types of care simultaneously. The investigation revealed amongst other things that higher income families and African-American families more often used centre care, whereas lower income families, European-American and Latino-American families more often used non-parental family care or relatives care. Higher income families and African American families used more hours of care than the other groups, parents who used relatives care used this type of care for more hours per week than parents using the other types of care.

94. Logistic regression analyses were conducted to determine which preferred care characteristics predicted parents' choice for a particular type of care. Although many characteristics were examined, only a few proved significant predictors. The choice for centre care was predicted by a high preference for a professional caregiver and a low preference for care of sick children. Ethnicity predicted the choice for centre care only for infants and toddlers, not for older children, showing that African-American parents more often chose centre care than Latino-American parents. The choice for non-parental family care was predicted by a low preference for professional caregivers, a high preference for small groups, a high preference for care for sick children, family income above the poverty level and ethnicity, showing that European American families preferred non-parental family care more than African-American and Latino-American parents. Finally, the choice for relative care was predicted by a high preference for care of sick children (particularly for older children), low preference for professional caregivers, family income below poverty level and ethnicity (African-American and Latino-American parents choosing this type of care more often than European-American families). Although the effects of ethnicity and family income could not be fully explained by differences in preferred care characteristics, the remaining ethnicity effects were relatively small, according to the authors.

95. A similar conclusion was drawn by Singer, Fuller, Keiley and Wolf (1998). If regional supply variation and demographic characteristics, mother characteristics and family structure were controlled, ethnicity no longer predicted choice patterns, although the overall effect without control for co-variates was quite big. In this study survival and hazard statistical analysis techniques were used to predict the probability of placement in centre based care. Among the strongest predictors of early placement were mother's education and mother's employment status during pregnancy, and negatively mother's age and the combination of the child being older and mother's education and age. Employment status during pregnancy was a less strong predictor of the probability of placement in centre care when the child was already three years of age. Also the number of siblings predicted placement: regardless mother's employment status and education, if there were three or more children in the family, the probability of placement decreased considerably.

96. Liang, Fuller and Singer (2000) examined in a large sample the role of child rearing beliefs as a factor explaining ethnic differences in child care utilisation. The choice for centre care and pre-school

programmes vs. other forms of care and early education (mainly relatives care or simply home care by one of the parents) was stepwise related to a range of predictors. There was no simple dimension explaining all interethnic differences. The degree of mother employment (at the start of pregnancy) and mother's education were positively related to the use of centre day care or pre-school use and partly explained ethnic differences. The number of children in the family (in particular when exceeding the number of two) and the presence of other adults in the household (spouse, grandparents) was negatively related to centre care or pre-school use and additionally explained ethnic differences. Finally, also cultural child rearing beliefs and, most importantly, the importance attached to pre-literacy development and early school adjustment, were related to the choice for centre daycare or a pre-school programme, and explained additional choice variance. The authors conclude their paper as follows: "Most important for the selection debate is that we find that parents – from all ethnic groups – who hold explicit beliefs and practices related to early literacy development, engage in educational activities with the child, and control television viewing are more likely to select centre care. This finding is robust after taking into account a variety of other family economic and social structural factors." (p. 379)

97. In a Dutch study by Van den Berg and Vlug (1993) 150 Moroccan and Turkish immigrant parents with children under elementary school-age (age 4 years in the Netherlands) were interviewed about their need for ECEC. Despite the actual low rates of use of day care centres and play groups, the interviewed parents in majority indicated interest in utilising a low-intensive (two or three mornings) educationally oriented centre or pre-school. As in the USA studies, the demand for ECEC appeared to be related to family structure, income level and cultural beliefs. Interest in ECEC was negatively related to the presence of other adults in the household (grandparents) and the availability of informal relatives care, the number of children, mother's age, perceived costs, and traditional child-rearing beliefs, and positively to parent's education level, years of residence in the Netherlands, employment of the mother and the importance attached to developmental considerations (learning Dutch as a second language, social-emotional development, preparing for elementary school). Parents also mentioned concern with a possible mismatch of important socialisation goals between home and centre. Furthermore, parents clearly differentiated between younger and older children. For the younger children (under 2 to 3 years of age), Turkish and Moroccan immigrant parents thought care and love by the child's mother much more important for healthy development than education and second language learning by non-parental caregivers in a centre.

98. The Belgian study by Vanpée et al. (2001) also involved a small sample of ethnic minority parents (N=60; equally of Turkish and Moroccan descent). Although the small sample size does not allow for strong generalisations, some findings will be presented here briefly. As reported for the Netherlands, ethnic minority parents used official child care provisions much less frequently (13% vs. 62%) and much less intensively than mainstream Belgian parents. About 42% of the ethnic minority parents reported *no need* for nonparental care as the main reason, because at least one of the parents was fulltime at home, either as a housewive or because of long term unemployment. About 47%, however, mentioned cultural-ideological reasons: the mother was seen as the prefered caregiver (25%); caring for the youngest children was seen as a task for the parents (22%). Among the reasons to use child care, having more free time for leisure activities or for extra housekeeping were most frequently mentioned (note that the number of immigrant parents using a care provision was very small). In additional series of questions, a relatively large share of ethnic minority parents (41%) expressed a lack of trust (not further qualified) in official nonparental child care. About one-third thought child care too expensive. Another 18% thought the fact that caregivers don't speak the children's languages a problem. Financial arguments were most frequently mentioned as a disadvantage when centre based child care was concerned. Typically, educational motives apparently did not play any role in ethnic minority parents'decisions. This may be explained by the availability of free kindergarten starting at age 2½ years.

**The influence of macro socio-cultural factors**

99. To understand demand and supply mechanisms in ECEC and the utilisation of ECEC provisions, also countries' and states' recent socio-historical and economic development should be considered, in particular regarding the position of women in the family and the economy. A study by Pfau-Effinger (1999) illustrates how economic and ideological conditions shape the ECEC systems and determine demand and utilisation. In her study, Pfau-Effinger describes post World War II modernisation trends in three countries with, nowadays, quite different ECEC systems: Finland, the Netherlands and West-Germany. She distinguishes five cultural gender models that may represent the predominant social consensus in a given society in a given period and that may constitute the basis of a state's family and child policy. She further identifies a number of catalysts and constraints to explain the historic changes in these three countries. The five models, that may be useful to describe and analyse family and ECEC policy in other countries as well, are briefly described below.

1. The *family economic gender model* is typical in traditional, mainly agrarian societies in which the family functions as the basic economic unit. Man and wife co-operate closely in their own farming and crafts business, and children are assumed to take their share in the family business as soon as they are physically able.

2. The *male breadwinner, female child-care provider model* is characteristic for an industrialised society that differentiates the public-economy and the private-family spheres, while not fully recognising the individual rights of women. The male works fulltime and the level of economic development allows him to earn enough income to maintain the family. Children are seen as needing special care and extensive support, preferably to be provided by the mother.

3. The *male breadwinner, female part-time childcare provider model* is a modernised version of the traditional male breadwinner model. Women's right to personal development through education and social participation is acknowledged. As long as there are no dependent children at home, or for the hours that children are in school, male and female are both employed and earning income. However, when there are young children who are seen as needing special care and extensive attention, it is the woman who provides this care.

4. The *dual breadwinner, state child-care provider model* is characteristic of the welfare state society with a high degree of statutory individualisation, a completed labour market and a blooming economy that needs full-time employment of men and women. Although childhood is constructed as a special phase of life and children are seen as needing care and support, this is not regarded as a primary task of the family. The welfare state is regarded as competent to provide adequate care and education.

5. The *dual breadwinner, dual child-care provider model* most consistently reflects the equal positions of men and women. Both income earning and child care are roughly equally divided between the genders. The model suits a welfare state society that still regards the family as the most suitable context for child care and early education, and that has a flexibly structured labour market with ample part-time jobs for both men and women. Although there is a high degree of individualisation, the family is still a basic unit.

100. Applying these models, Pfau-Effinger shows that post-war modernisation in Finland, the Netherlands and West-Germany followed different paths, leading among other things to different ECEC systems. In the Netherlands and Germany the post-war starting point was the traditional male breadwinner, female child-care provider model, marked by a strong gender inequality. In both countries, this model lasted until the cultural revolt and rise of the feminist movement of the sixties, when women's rights received more official recognition. In Finland the family economic gender model dominated, with a gender equality cultural model at the start, that smoothly integrated the feminist movement.

101. The multi-confessional Dutch society opposed the notion of a strong role of the state in child care. The different religious and ideological communities were united by the central idea of the family as the society's cornerstone. The growing economic affluence, the recognition of women's rights and the building of the modern welfare state, was in the Netherlands combined with a strong tendency towards

equality. According to Pfau-Effinger, it led to a family-oriented redistribution policy that is still operative. Few women really need to work to complement the family income. In the eighties, in the so called collective agreements between employers and unions, the right to part-time work and a further reduction of the work week to 38 and in some sectors even 36 hours was guaranteed. Among the arguments of the unions was the desired participation of fathers in child care. In this context, Pfau-Effinger concludes, the former dominant male breadwinner model developed into the *dual breadwinner, dual child care provider model*, supported marginally by forms of non-parental care and education. It also explains the slow response of the state to the growing labour force participation of women in the Netherlands, which was demanded by economic and demographic developments. It was only in the early nineties that national measures were taken to increase the supply of centre based child day care to meet the growing need.

102. In West-Germany, although starting with the traditional male breadwinner model as well, the rebuilding of the post-war society and economy required many women in the lower income groups to apply for part-time jobs to complement the family income. As the state did not or could not respond to the resulting need of child care, churches and charity foundations founded day care centres, pre-schools and kindergartens, not meant as substitute for the family but as support. In addition, parents sought informal solutions leading to the relatively big share of so the called grandparent model (relatives care) in West-Germany. In the building of the German welfare state, the government followed these initiatives, which explains why the German state's response to the need for child care came earlier and was more sizeable than in the Netherlands. According to Pfau-Effinger, because in West-Germany a strong family and equality oriented redistribution policy was lacking, the traditional male bread winner model developed into the *male breadwinner, female part-time child care provider model*. At the same time, in Germany, as in the Netherlands, the view still prevails that the family is the most suited environment for raising children.

103. In Finland post-war modernisation started from a traditional family economic gender model, that was marked by a strong sense of gender equality. The rapid post-war industrialisation meant in Finland that both men and women found fulltime employment in the public sphere. In the early sixties, concern about child-care grew. Reports were published revealing that children were sometimes left at home without supervision. According to Pfau-Effinger, economic affluence and the rise of the welfare state in Finland in the sixties and seventies were used to set up a state provided full-day child-care system for pre-schoolers and a state provide school-based system for after-school care. The traditional family economic model changed into the currently predominant *dual breadwinner, state child-care provider model*. The vast majority of Finland's young children are nowadays cared for and educated in centres by professional caregivers, apparently without problem.

**Some conclusions on the issue of parental choice**

104. The decision parents take to use one type of child care or another is based on many considerations. The present review, based on limited evidence, suggests that post-war socio-historical conditions, macro-economic factors and predominant cultural models jointly shaped the present ECEC systems in different countries and states, determining the supply qua capacity (provided hours), type, quality and price, and explaining differences in ECEC systems between countries and states. On the other hand, the family income level, the number of young children in the family, parents' education, mothers' employment status, the availability of relatives care, and child-centred cultural beliefs about child rearing and child development determine a *potential* demand concerning capacity (desired hours), type, function (care vs. education), and quality. Note that, although quality appears to be an important consideration, parents often lack a precise knowledge of what constitutes quality. Whether the potential demand indeed leads to enhanced utilisation depends on the supply. Ideally the supply matches the demand, but in reality, in some countries, the supply may not be adequate, both quantitatively and qualitatively (i.e., not matching parents' preferences and socialisation goals, and concerns about quality).

105. The reviewed studies suggest that social class and ethnic differences in ECEC use can probably be fully explained by 1) family income, number of children and mother's employment and hourly wages, in relation to the parental fee required by the ECEC provisions; 2) cultural child rearing beliefs, in particular the importance attached to early stimulation of (second) language and literacy development, in relation to the perceived quality and function of the ECEC provision and also in relation to the child's age; 3) degree of acculturation/integration and the number of years of residence in the new country, in relation to the perceived socialisation goals of the ECEC provisions; and 4) convenience considerations and availability of informal care by relatives, in relation to location, opening hours, and rules regarding care for sick children of the ECEC provisions.

106. Policy measures that seek to increase the participation in ECEC systems by presently underrepresented low-income and ethnic and socio-linguistic minority groups, in particular when children in these groups are at risk of developmental and school problems, should deal with all these aspects. The income-fee relationship is obviously a first starting point, that can be tackled by further economic redistribution. On the best policy of redistribution opinions differ strongly. Some of the reviewed studies suggest that an indirect way of subsidising, through vouchers and tax measures (demand-side subsidy), may be the best strategy in this regard. However, experiences with voucher systems in Autralia and the UK on the one hand (OECD, 2001) and experiences with largely publicly funded and organised educare systems (supply-side subsidy), for instance, in Sweden and Finland on the other hand, suggest that other solutions are feasible and perhaps preferable. However, the national consensus may not be in favour of big public expenditure to nonparental day care. In any case, decentralised subsidy strategies should always be accompanied by strong measures to monitor and insure minimum quality standards.

107. However, the economic answer is probably not sufficient. If it is true that many low-income and ethnic and socio-linguistic minority parents do not share modern child-centred beliefs and values, they may still fail to see the utility of using an ECEC provision for their children, even when the costs are low. Although most of these parents probably do value a successful school career for their children, they may fail to see the connection between this goal and using a day care centre or pre-school. Admittedly, this connection indeed *is* not unproblematic, as was reviewed in the previous chapter. Guaranteeing quality, and in particular *efficacy* with respect to cognitive, language and social-emotional development, of ECEC provisions, seems to be a crucial next step in policy development.

108. Parents probably rightly observe discrepancies between socialisation in centres and pre-schools, and their own socialisation goals. This problem should be tackled by organising ECEC provisions that more closely match to the families' goals and values. Finally, convenience considerations probably do not point to lack of interest or laziness. If it is true that low income and minority families have to deal with lots of stressors and daily hassles, that accumulate in the family and the wider social context of the family, observing the rules and time schedules of a day care centre or pre-school, and trying to meet the requirements of personal involvement in the programme may be an extra burden. This problem should be tackled by making ECEC provisions more supportive to the other needs of families.

## CHAPTER 5

### Quality and efficacy: implications for the design of ECEC-systems and ECEC policy

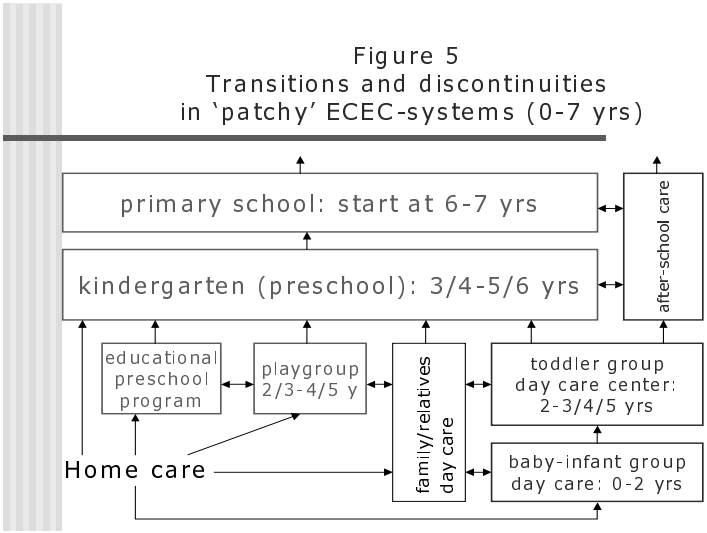
109. Quality and efficacy of ECEC systems are somehow related. But what constitutes quality? Well-known from the extant child day care research, are the following characteristics: sensitive responsive care-giving, secure social relationships, stimulating verbal interaction, a favourable staff-child ratio, a small group size, a richly equipped play room, high professionalism of the staff, and a reasonable staff salary level. Based on recent research in developmental psychology new characteristics should be added. On the level of programme content or curriculum pedagogical-didactic concepts should be based on the notions of inter-subjective co-operation with peers and teachers in challenging, authentic activities with culturally relevant contents (e.g. language, academic language, pre-literacy, pre-numeracy, meta-cognitive and social skills), programmes should create time and strengthen the coherence between different activities and experiences. Programmes should be built up so as to provide continuity and a gradual increase of richness and complexity of activities and experiences over several years, in order to support complex skill construction and its neurological consolidation.

110. At the level of ECEC-systems design coherence and continuity between simultaneous and successive contexts of development should also be strengthened. This concerns in particular the transitions between home and ECEC-provisions, the transitions between different successive ECEC-provisions, and the transition of ECEC provisions to primary school. Discrepancies between the most important contexts of development and learning, and early frequent interruptions may render the developmental and learning processes less effective. The importance of coherence and continuity is not only related to cognitive and language skill development, but equally to the construction of secure social relationships and emotional self-regulation skills. Worrying in this regard is that the ECEC systems of many countries show a patchy design, as the Starting Strong review revealed (OECD, 2001). These systems are marked by many discontinuities and major transitions, disrupting children's social relationships with other children and the caregivers and making educational processes less effective (see Figure 5). Different government bodies are responsible for different subsystems and impose different quality regulations and staff training requirements, and use different subsidy strategies. Different subsystems serve different functions, stand in different traditions (e.g. care vs. education) and, therefore, adopt different pedagogies. The ECEC systems in, for instance, Australia, Belgium, the Netherlands, the UK and the USA, consist of several subsystems, with different macro-economic functions, sharp boundaries, problematic transitions between simultaneously and successively used subsystems, strong differences in quality and price, and strong tendencies of socially selective use that correlate with quality (Chan & Mellor, 2002).

111. Awareness of the possibly disturbing influences of transitions has urged several countries to develop strategies to ensure pedagogical continuity. Among these are curriculum strategies that define common age-specific and age-appropriate goals and basic competencies to be developed in all ECEC subsystems. Examples are to be found in Australia, Belgium (Wallony) and Sweden (see OECD, 2001).

Although a national curriculum in the form of common quality standards and development goals may not be a very powerful means to create more coherence, continuity and increasing richness and complexity of experiences across different ECEC subsystems, unless regulations, financing and monitoring systems are organised so as to support the implementation strongly, they do at least provide a common frame, a shared language for communication amongst the professionals working in different ECEC subsystems. Interesting is also the Portugese concept of Escolas Básicas Integradas (Integrated Elementary Schools) that provide within one school a continuous trajectory of pre-school education and compulsory elementary education. Pre-school and elementary school staff are increasingly cooperating. Whenever possible, children are followed by the same group of teachers within the compulsory school system. The objectives are to facilitate coherent learning conditions and strong family-staff relationships (OECD, 2001).

Figure 5
Transitions and discontinuities
in 'patchy' ECEC-systems (0-7 yrs)




112. The quality aspects added from theory converge by and large with the characteristics that were found to determine the (long term) efficacy of educational pre-school programmes, such as a relatively early onset (but probably not too early), relatively intensive participation and a rather long duration of a comprehensive curriculum with broadly defined – 'whole child' - developmental goals, whereas the importance of a high degree of professionalism of the intervention agents (nurses, teachers) can be interpreted as referring to the need for high quality interactions, sensitive responsiveness and secure stable social relations. Furthermore, targeting multiple systems, involving the parents and addressing the family's other support needs, and continuing the intervention into elementary school, matches the principles of coherence and continuity between simultaneous and successive contexts of development.

113. Is there one type or form of ECEC that is universally ideal and that should be the standard to be followed everywhere? Probably not. First of all, children's needs differ with age and neuro-biological maturation. The results of the recent NICHD study may be seen as a warning that very early intensive utilisation of centre based care can be hazardous for the social-emotional development of all children even if, to present standards, high quality care is provided. Put differently, this type of ECEC – that is, centre-based care - may simply not be very suited to serve the needs of very young children, at least not until they are two or three years of age. Although there is the possibility to further decrease group sizes in the 0-2 years period, and to require additional staff qualifications, a costs-benefits analysis may lead to the conclusion that other alternatives should be pursued. In this perspective, parental leave measures, the right to part-time work, eventually combined with low intensive centre care or with non-parental family care, present a clear option. Examples of extended parental leave measures (6 to 12 months after child birth) are to be found in the Nordic countries. Systems to support young parents in the pre- and postnatal period and

to provide education on health and care issues (vaccination schemes, baby-infant clinics, home visitation programmes) exist everywhere on large scale. Programmes to organise social support and to provide concrete help to parents and families with young (under three) children, such as the Home Start programme, are presently implemented on small-scale only in a few countries.

114. Second, children differ at all ages and in all stages of development, for instance, in personality or temperament, making some children more vulnerable to child rearing quality than others, or making some children less gaining from peer interaction than others and, therefore, perhaps better off in small group family day care or in small-group high quality specialised professional day care than in standard centre-based care throughout the pre-school period. More research is needed to further detail this issue. The point raised here also concerns the position of pre-school children with development problems and special educational needs, OECD's A- and B-categories, a topic that was not further addressed in this study.

115. Third, the needs and preferences of families differ. Although there may be a majority consensus in a given country or state in favour of centre-based child care, as in the Scandinavian countries, or a consensus, as in Belgium, that the state should provide kindergarten starting at age 2½, differences in labour market participation, family structure and parents' cultural beliefs may lead to other preferences and needs that are not served well by the predominant types of ECEC. The scarce information on sociolinguistic and ethnic minority families in European countries, Australia and the USA, suggest that lack of trust in the official ECEC system and the socialisation goals and culture it represents, is a major cause of lower participation in ECEC provisions amongst these communities. For instance, Australia has initiated several special projects for the indigenous minority of Aboriginals (about 2% of the population) to decrease the apparent gap. Aboriginal children are underrepresented in most forms of ECEC. However, in the special multifunctional aboriginal child services that were set up participation rates are reported to be high. Further, in ECEC much is done to ensure that care and education are culturally and linguistically appropriate. Other programmes focus on raising cultural awareness and sensitivity amongst the other Australians, pre-school nurses and teachers in particular. Other countries initiated special intercultural and cultural sensitivity projects as well to descrease barriers to ECEC. To mention just a few examples, the foundation Kind en Gezin in Flanders, Belgium, employs intercultural intermediaries to enhance participation of ethnic minorities in day care centres and a special project, Milestones towards Quality through Equality was started to make day care more sensitive to different cultural beliefs. Denmark, Finland, Norway and Sweden incorporate culture-sensitive bilingual assistance within their educare systems. Portugal ran an Intercultural Education Project from 1993-1997 in areas with a high representation of immigrant families in order to improve (pre)school-family relationships and to provide information on the ECEC system.

116. Again, balanced bilingual development in early childhood as a goal requires balanced bilingual education. Although in particular in the Nordic countries and some states of the USA bilingual programmes are carried out in the pre-schools, other countries face difficulties in providing institutional support to balanced bilingual development. Practical constraints may limit the role of day care centres, pre-schools and kindergartens in this respect. The presence of many different first languages in one classroom and the impossibility to find and hire staff to serve all these mother tongues equally well, requires alternative strategies such as involving the parents and the socio-linguistic communities. This may be facilitated through the provision of home-based programs and L1 pre-schools run by the cultural community (Leseman & van Tuijl, 2001). These considerations are especially relevant in the context of low participation in ECEC by particular sociolinguistic minority groups. Even when there is only one major foreign language community in a state or country, and (pre)school bilingual programmes are feasible, such as Spanish-English programmes in kindergartens and elementary schools in California, USA, political objections may call a halt to providing bilingual education in publicly subsidised (pre)school hours.

117. In summary, the ideal ECEC system is differentiated, adaptive, and both child- and family centered, but coherent and of high quality within the different types of care, education and support that are provided, and marked by equal quality regulations for all subsystems. An example of an ECEC system that is at once integrated and differentiated, continuous but age-appropriate, is to be found in Denmark in the form of the so called age-integrated services (see Figure 2), which are provided to up to 33% of the 1-6-years-olds, besides more fragmented ECEC subsystems in the 0-6 period. Age-integrated services combine several education and care functions in one local pre-school centre, such as full day care, occasional 'drop-in' care, playgroups, pre-school education programmes, after (pre-)school care, leisure time activities for young children, and parent-support programmes and basic education for adults. These services can be provided in parallel, in order to fill the day or the week (combining educational pre-school with leisure time activities in after-school-care), and also successively, for instance, starting with using the 'drop in' facility, continuing into the play group and finally ending in fullday pre-school and after-school-care. Also the Finish and Swedish systems offer age-appropriate integrated services in systems for children from 1-6 years, used by 24% to 64% of the 1-3 and by 54% to 90% of the 3-6-years-olds respectively (OECD, 2001), but the centre-based care type serving children from families with - as a requirement for admission - both parents working predominates. Furthermore, in Sweden, cuts in the largely publicly financed ECEC sector in the nineteen-nineties of the last century caused services other than full daycare to disappear from the centres. Reports from Sweden indicate that children of unemployed parents and ethnic minority families are gradually being pushed out the ECEC system for these reasons (OECD, 2001). It should be noted, however, that in Sweden still a large part of the children of low income families attends pre-schooling of some type, 72% compared to 80% of the children of higher income families (Country Paper Sweden, 2002).

**Some new initiatives**

To conclude this paper, a number of recent inititiatives in the countries participating in the Starting Strong review in order to enhance accessibility of ECEC services for low income and ethnic minority families will be briefly discussed.

***Broad-based (community) schools/ parent-child centres***

118. An interesting innovation that was initiated, or at least supported, the past decade by the education sectors in several countries, concerns the transformation of elementary schools to so called 'broad-baed schools' or 'community schools' or 'full-service schools', as they are called (cf. Children's Aid Society, 1997). Broad-based schools combine in one building, under one management team and administration, several services for (young) children, their parents and wider community, whilst preserving the function of instruction in reading, writing and math as a core activity. Services that are combined with elementary school include compensatory pre-school education and language programmes (for 3-6-years-olds), fullday educationally oriented day care ('educare', for 0-6 years olds), extended school day programmes and after school care (for 6-12-years-old elementary school students). In addition, leisure time activities for adults (e.g. sewing or cooking courses for mothers, card game clubs for the retired), child rearing and health education for young families, and basic education for low-educated parents may be provided. Coherence and intersectoral cooperation is ensured by periodical inter-service staff meetings, joint case-management, and occasional staff exchange. Broad-based community schools are presently found in the USA (New York City) and the Netherlands. There are no formal evaluations known to the present author, but if broad-based schools succeed in keeping to the educational goals, linking early starting intensive pre-school programmes - or educational daycare -, family support and adult-empowerment activities to the school's educational mission, broad schools have much in common with the previously discussed combination programmes that showed long term effects.

119. Related to the concept of broad full-service schools, is the concept of parent-child centres (or 'child centres', or 'time for family' centres). Parent-child centres usually combine different functions for babies, infants, toddlers and pre-school children in one building in the centre of the community, ranging from prenatal consultation and home visitation, vaccination, postnatal infant health care education and general family practice, to playgroups, 'drop in care', parent discussion groups, and meeting places for parents. An advisory and referral function to specialised help and care, or to pre-schools and bilingual programmes, is part of the service. Examples are the Early Excellence Centres in the UK (a pilot was initiated in 1997), the Area Bambini and Tempo per la Famiglia in Pistoia and Milano, Italy, and the concept of Ouder-Kind Centra (Parent-Child Centres) in the Netherlands.

***Head Start / Sure Start / Dutch VVE policy***

120. Most of the participating countries provide pre-school education programmes targeted specifically to low income and ethnic or sociolinguistic minority groups (OECD, 2001). Examples are The aims are to promote the cognitive, (second) language, pre-literacy and pre-numeracy skills, and the social-emotional competence of children from these disadvantaged communities in order to provide them with a fair start in elementary school. The long standing tradition of this type of ECEC provisions was reviewed in Chapter 3. The pooled results revealed that not any model will do. Low intensive, low dose, late starting, mono-systemic approaches were found to be overall less effective. Early starting, intensive, long term, multisystemic approaches that include centre-based education and involvement of professionals, exemplified by the so called combination programmes, were found to be superior. However, many of the targeted pre-school education programmes currently provided do not meet these criteria of efficacy and quality. Moreover, pre-school education programmes for disadvantaged children are often temporary projects. Furthermore, the scale that is reached seldom matches the potential demand as can be deduced from demographics. Head Start in the USA is the largest implementation of centre-based education programmes worldwide, yet caters for only 36% of the eligible low-income and ethnic-sociolinguistic minority children in the USA (OECD, 2001). In other countries the scale is much smaller and the coverage of the potential demand much less.

121. In order for special pre-school programmes for disadvantaged groups to have significant impact on educational opportunities and social inclusion the quality should be improved and the scale should be enhanced. Recent inititiatives in the UK, with the Sure Start project, and in the Netherlands, with the so called Voor- en Vroegschoolse Educatie (Pre- and Early Primary School Education; VVE) policy, are intended to break with the tradition of small scale, low impact monosystemic projects that are only provided temporarily. Sure Start is modeled after Head Start, but includes in addition to pre-school education for 3-5-years-olds targeted family support and health services for families with younger children, and aims at broadly defined developmental goals (whole child approach), including emergent school skills. Sure Start is community-based and implemented in areas of greatest needs throughout the country. Currently 269 areas are involved, the target is 500 by 2004. All families and children living in these areas are eligible for support and pre-school services upon demand, thus avoiding stigmatisation. Several support strategies are combined, such as prenatal home visitation, postnatal health education, quick referral to specialised services (e.g. speech therapy in case of language delays), social meeting groups for parents, child-focused playgroups and pre-schools. Sure Start is highly decentralised, not prescribing one model or approach, but stimulating 'bottom up' initiatives. With regard to the objective of stimulating children's learning abilities in the pre-school period the question may arise whether this open approach will be sufficient to yield lasting effects.

122. The Dutch VVE-policy, launched in the year 2000, is also intended to create permanent provisions of compensatory education programmes for 2½-6-years-olds from disadvantaged background by promoting cooperation between day-care centres, playgroups, pre-schools, home-based programmes

and the kindergarten-departments of elementary schools in order to provide a continuous educational trajectory that extends into elementary school. The ambition is to reach 50% of the eligible children of low income and ethnic minority families by 2006. A whole child approach is advocated, although emphasis is placed on learning Dutch as a second language. The actual implementation of the VVE-policy is decentralised to the municipalities, but the national government attempts to ensure quality and efficacy by making demands regarding age of onset, intensity, duration, staff-child ratio, parent involvement and curriculum coherence, and by advising strongly in favour of a number of comprehensive high-quality education programmes that were recently introduced in the Netherlands (including the Dutch version of the High/Scope curriculum). Two independent evaluations of these programmes revealed medium-sized to strong positive effects on standard language and cognitive tests comparing the programmes with regular pre-school (for 3-4-years-olds) and regular kindergarten education (for 4-6-years-olds). However, it should be noted that the ambitions of the VVE-policy are yeopardized by the current shortages of early childhood teachers, training capacity and appropriate housing. With the expansion of compensatory pre-school education programmes the question becomes urgent how this particular ECEC-subsystem relates to other ECEC-subsystems, in particular to centre-based day care and playgroups.

***Comprehensive family support systems / Integrated family welfare and child and youth care policy***

123. The awareness that safeguarding children against developmental risks and promoting well-being and skill development requires a multidisciplinary, multisectoral approach has led to policies that promote coordination, cooperation and integration on the municipal or regional level of services in different professional sectors, e.g. public child and youth (mental) health care, youth aid, social work, social welfare, child care, and education, and a family-focused, demand-driven approach to families' needs. Knitzer, Yohikawa, Cauthen and Aber (2000) review the consequences of successive welfare policy reforms in the USA, including the 1988 Family Support Act and the 1996 Personal Responsibility and Work Opportunity Reconciliation Act, on youth mental health status. The authors critize the "work first" ideology of subsequent reforms and the lack of attention to effects on the contexts of child development and children's early learning experiences. Whereas the welfare reform in the USA stimulated parents to get jobs and to be less dependent on welfare and actually improved the welfare and child rearing conditions in a number of families, a large group of families did not escape poverty because they were forced to accept low wage jobs, to work overnight, to do double shifts, and to use low quality child care. As a result, child rearing conditions deteriorated instead of improved. This concerned in particular families with multiple and cumulative risks (poverty, substance abuse, domestic violence, low literacy, health problems).

124. Based on research into multiple risk accumulation (see Chapter 2), it is recognised that risks are ubiquitous, that risks may arise at any time in the child's life-course in any circumstances (e.g. sudden loss of a beloved, sudden unemployment), that the developmental impact of risks depends on both personal (e.g difficult child temperament, depressive symptoms with the parents) and social-contextual characteristics (e.g. the presence of social support, availability of high quality day care), and that multiple risks may accumulate in very diverse constellations, rendering standard monodisciplinary approaches, single intervention programmes and one-sided ("work first") welfare policies less useful and less effective (Knitzer et al., 2000). Generally, integrated infant, child and youth services are neither universal nor targeted to a particular community or indicated after screening, but provided upon demand. This seems the best way to deal with the multiplicity, or comorbidity, of problems experienced by families (Gutterman, 1999; Leseman & Hermanns, in press). Being sensitive to the worries, negative emotions and support needs that parents express may also be the best strategy to provide help to children and families *in time*, before family functioning becomes maladaptive, as was argued in Chapter 2. Ideally, every family, every parent or every child with particular needs for support should find appropriate support as soon as possible, well tailored to the individual family's or parent's situation. Comprehensive integrated systems of support and care, therefore, should incorporate low threshold 'finding places' or 'front offices', where parents can

express their questions, worries and problems freely. These places of contact with families should be connected with a broad array of specialised services ('back office'), so that efficient quick referrals and, whenever needed, combined support efforts can be guaranteed. ECEC services, such as day care centres and pre-schools, could fulfil part of this role, making these services at the same time more sensitive to the other needs of children and families as was recommended in Chapter 4 as a strategy to enhance ECEC use by low income and minority families.

125. It was concluded in Chapter 3 that positive long term developmental outcomes of ECEC require a broad contextual approach of supporting and improving post-intervention education, family and neighbourhood contexts. Therefore, in addition to school improvement, embedding ECEC services in a comprehensive family and community support policy is highly recommendable. This is the starting point of the British Sure Start policy, discussed above. Other examples of more or less successful cooperation and integration of multiple services for families with young children are found in the USA (Harbin et al., 2000; Knitzer et al., 2000), Germany (Hermanns & Leu, 1998) and the Netherlands (Leseman & Klaver, 1998). Different models of cooperation and integration are found, but the available research indicates that not all models equally well succeed in the double goal of reaching out to parents and families with multiple needs and providing appropriate multidisciplinary and multisystemic support that is tailored to the particular constellation of needs of these parents and families. According to Harbin et al. (2000), models with a high degree of integration and strong interrelationships of a broad array of multisectoral services under one co-ordinating administration, with a shared family-focused and client-centred attitude amongst all professionals, are most effective in terms of reaching out to families and clients' satisfaction.

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